

THE
ARCHITECT
& BUILDING NEWS

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- HIGH CROSS SCHOOL, HERTFORDSHIRE
- NEW FACTORY AT DUXFORD

DECEMBER 15, 1950 • VOL 198 • NO 4278 • ONE SHILLING WEEKLY

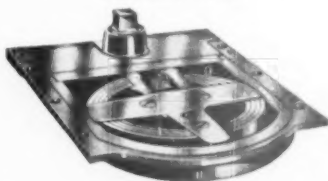


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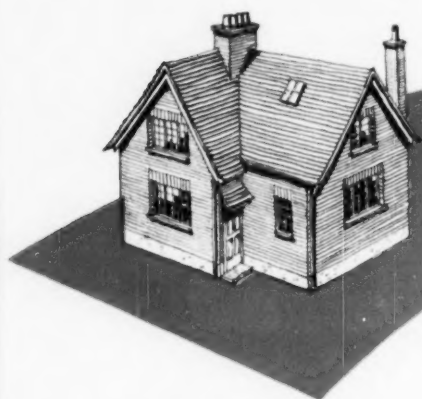
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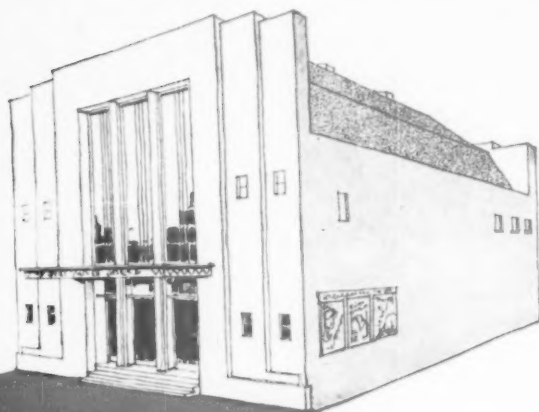


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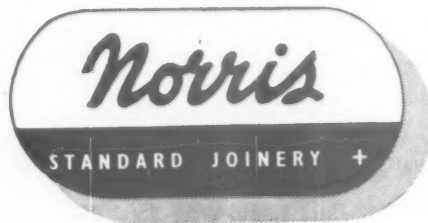
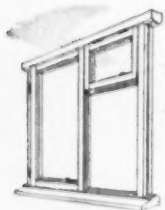
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AND CRAFTSMANSHIP LIVES ON With the coming of the Industrial Revolution and the development of machinery, the era of the lone craftsman passed into history. No longer was one man single master of his trade. Instead, the work was divided among specialists, each one a craftsman in his own particular line. To-day, the individual is an expert, whose specialised skill is an essential part of the whole.

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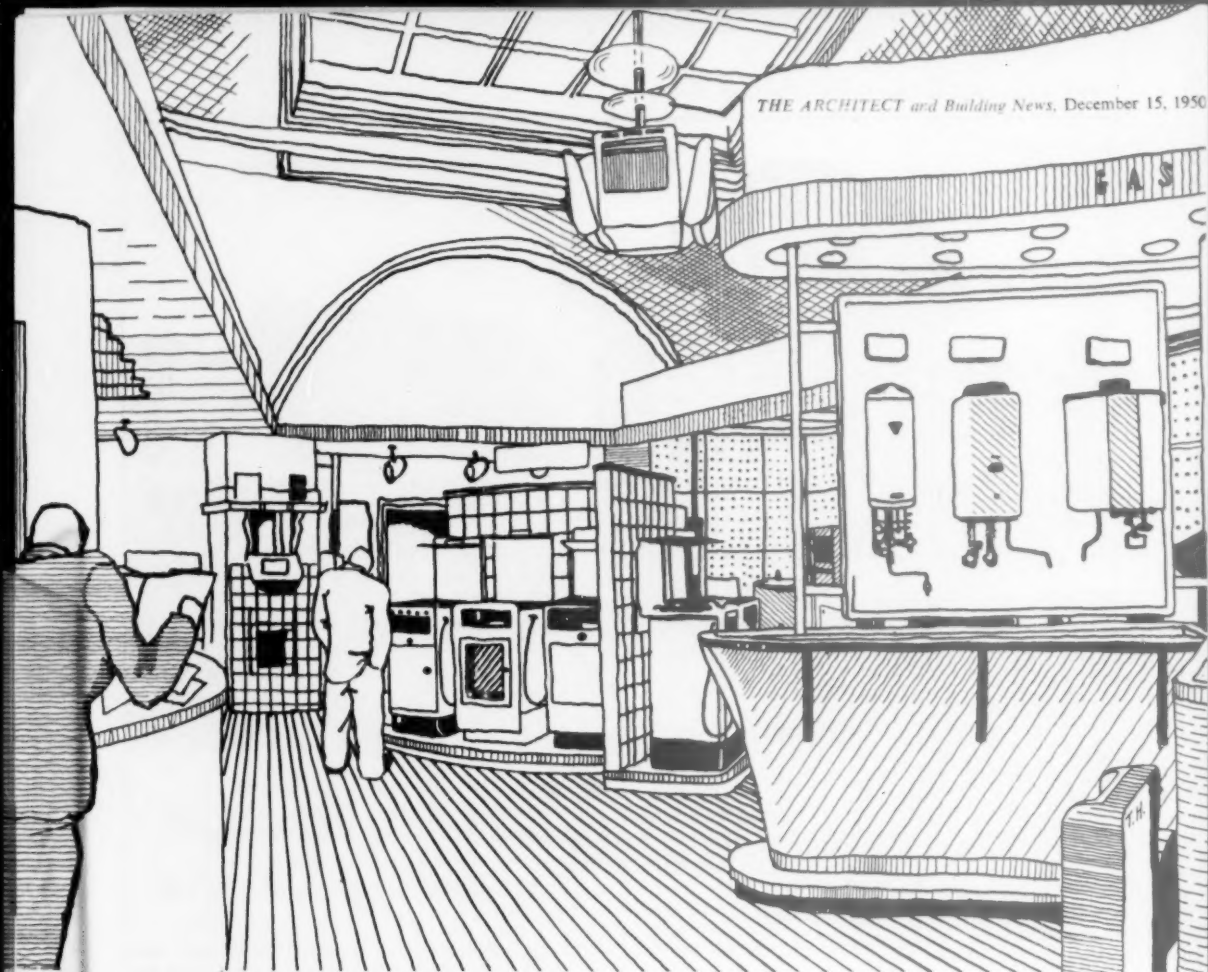
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UNDER THIS TITLE The Gas Council maintains, at the London Building Centre, a permanent exhibit the object of which is to provide a convenient centre to which architects, builders and housing authorities may come in order to keep abreast of the latest developments in gas services. The exhibit is largely devoted to the domestic uses of gas and coke, but also deals with large-scale catering equipment and other commercial and industrial appliances. A technical assistant is in attendance to give information and advice, and visits from individuals or organised parties will be welcomed (the latter preferably with prior notice).

This exhibit is one of many activities by which The Gas Council seeks to promote development of gas services for cooking, hot water, space heating and refrigeration. In all cases where the use of gas is envisaged early consultation with the local Gas Undertaking is advisable.

GAS

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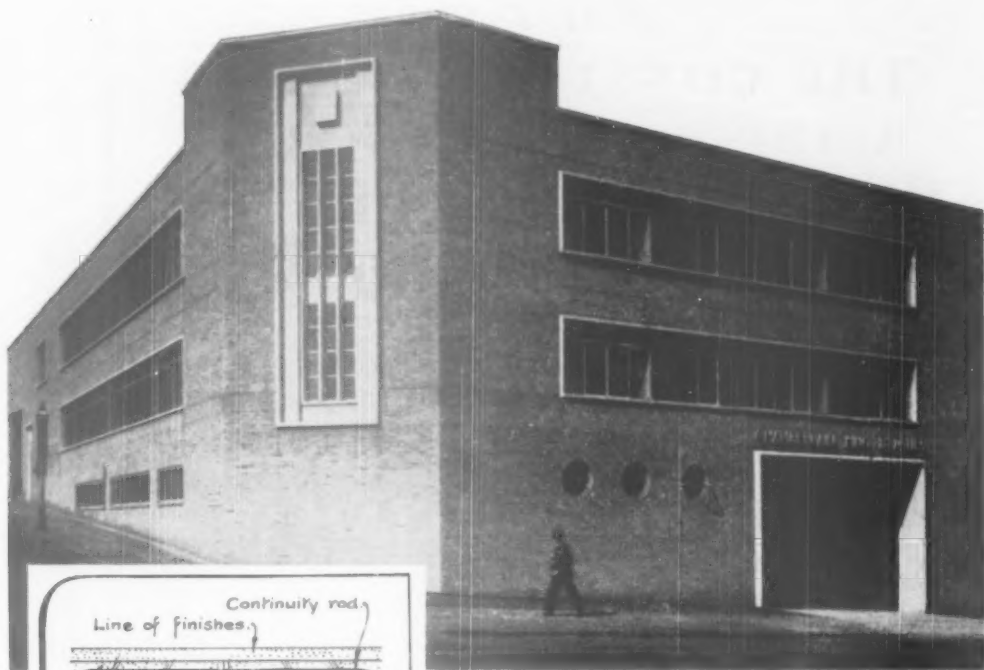
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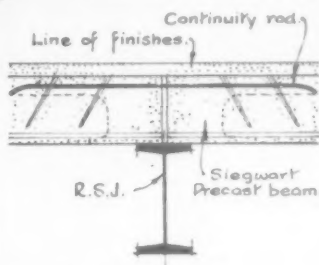
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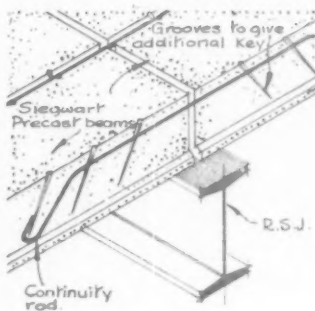
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1 The floor can be laid in panels of 40 ft. long by 20 ft. wide reinforced with oblong mesh.

2 The panels may be 30 ft. square when reinforced with square mesh.

3 The reinforcement is supported one inch above the bottom of the slab.

4 The panels are separated by strips of waterproof paper or thin bituminous sheeting.

5 When the floors cover a large area joints at about 60 ft. intervals should be filled with elastic jointing strips.

6 The concrete is made in the proportions of 1 cwt. cement to $2\frac{1}{2}$ cu. ft. of fine aggregate and 5 cu. ft. of coarse aggregate and no more water than required to make a plastic workable concrete.

If the sand is damp the quantity must be slightly increased to allow for bulking.

7 When the concrete is vibrated a very dry mix of concrete must be used.

8 The concrete may be laid directly on the ground if it is sand or gravel.

9 On clay sites a layer of ashes should be rolled into the formation.

10 It is always an advantage to place waterproof paper under the slab to prevent loss of water from the concrete in the ground.

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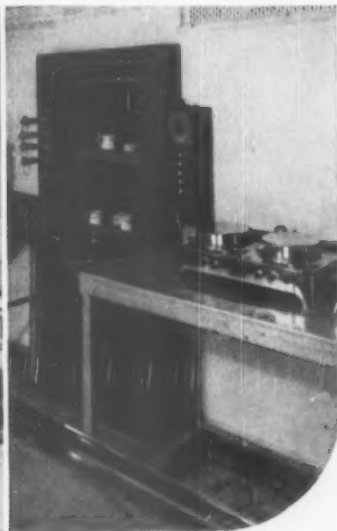
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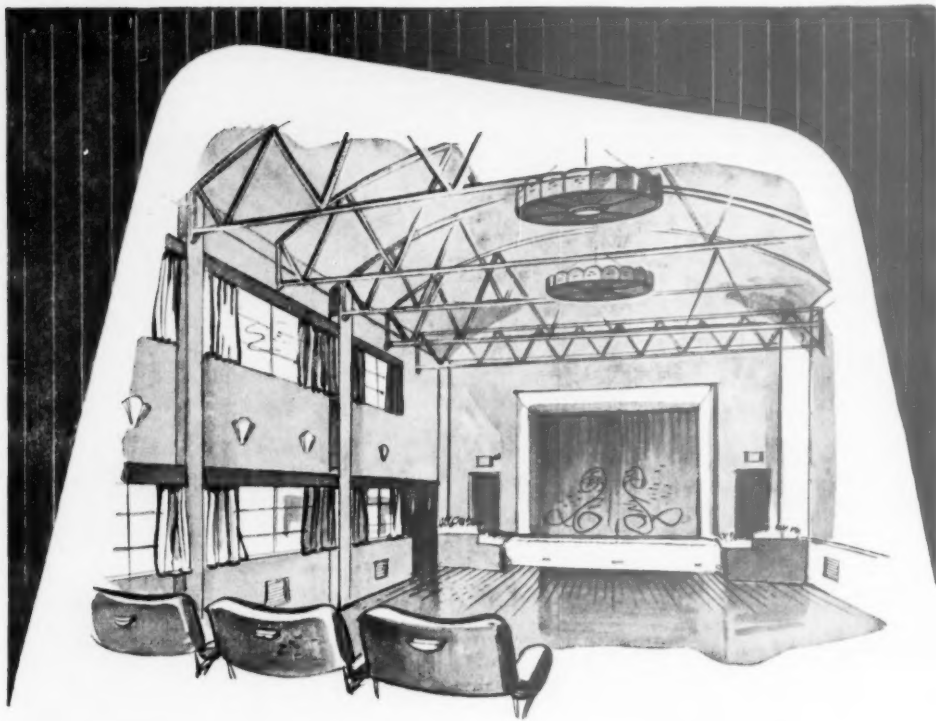
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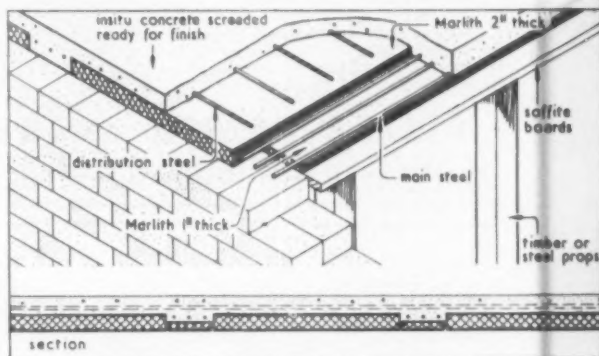
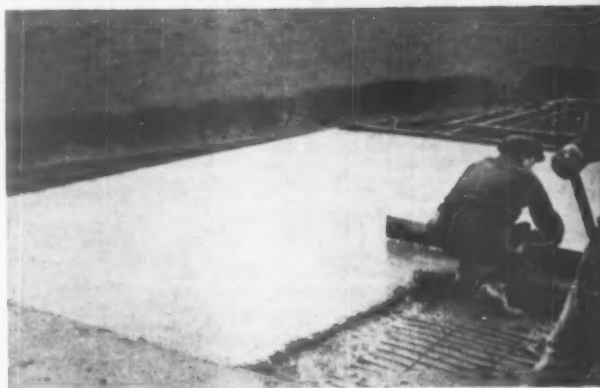
MARLITH

used as permanent shuttering
speeds up construction,
reduces costs, and provides
excellent thermal insulation

THE SHUTTERING for this flat in-situ reinforced concrete roof consisted of 2-inch MARLITH laid in temporary 2" x 2" x 3/16" steel tees supported by tubular steel scaffolding. The concrete was poured and the reinforcement applied in the normal way. When the concrete was set, the temporary steel tees and scaffolding were removed, leaving the underside of the MARLITH ready for plastering.

The drawing on right shows a similar construction in which timber props were used in place of tubular scaffolding, in conjunction with soffit boards and 1" thick MARLITH filling pieces.

The use of MARLITH in this way speeds up construction and reduces costs by eliminating the need for erecting and dismantling steel or timber shuttering and the application of insulation as a separate operation. It reduces the thermal transmittance "U" value of a 4½" flat concrete roof from 0.61 to 0.20, and the increased thermal insulation will maintain the temperature of the interior surface of the roof, thus minimising or preventing the formation of condensation.



MARLITH

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THE PHOTOGRAPHS were taken at Whitby Junior and Infants School, and show: below, MARLITH slabs being placed in position in the temporary steel tees; above, concrete being levelled.

ARCHITECTS: John Keppie & Henderson & J. L. Gleave, Chartered Architects, 196 West Regent Street, Glasgow C2

CONTRACTORS: Messrs. Jaram & Son, 20A Gladstone Street, Scarborough.

AUTHORITY: North Riding Education Committee, Northallerton



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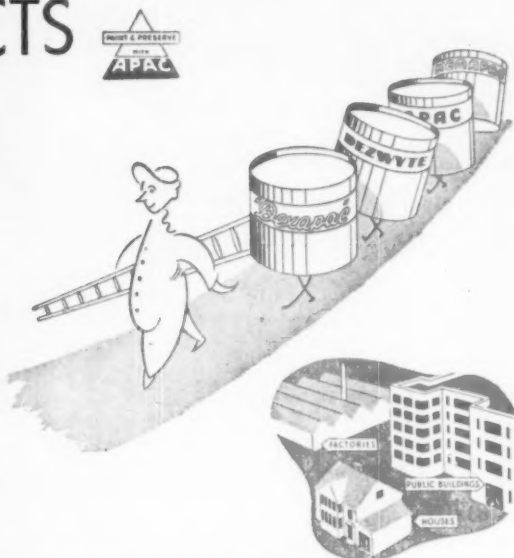
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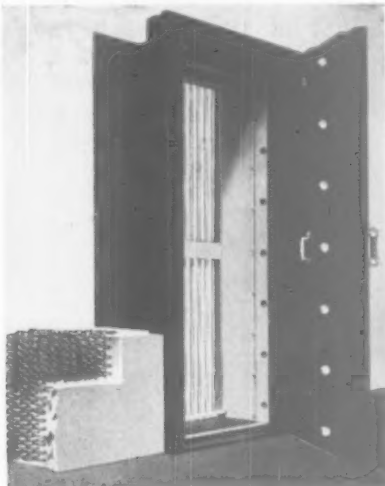
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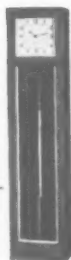
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PASS-MARKS

THE professional and technical schools, although in many instances planning for a decrease in numbers as the war recedes into the past, are still more than full. As a result there are still examination entries, for both intermediate and graduate status of all kinds, which exceed pre-war numbers by something in the neighbourhood of 60 per cent.

Most educationists have accepted this overcrowded situation as one of the unfortunate and evil results of total war and almost everywhere have expanded facilities almost to breaking point. Educational establishments have acquired additional temporary premises, have split up schools and courses and lectures, doubled many, and even organized repeat lectures or extra terms to try and meet the demand. One of the major difficulties always arose with staff; too few qualified persons to take over and to meet the great influx of students. At first, before the professions and industry recovered from war-eclipse or accomplished the change-over from war to peace production, there was a tendency for many experienced and qualified men and women to take up teaching, if only temporarily. Now those that are responsible for the still swollen schools are finding it increasingly difficult to get or to hold the necessary numbers of staff together. In part, the out-of-date Burnham scale of remuneration is responsible.

Another side of what may be the same question was stressed last week by the President of the Chartered Institute of Secretaries. Coming from such a source and an examining body which deals with such all-round subjects, it must be taken to

confirm something about which we have had an uneasy feeling for some time, in the architectural profession itself. Namely, the general falling-off of the percentage of passes in examinations of the last year or two.

While the President hoped there was no particular significance in the present situation, he admitted that he was "prompted to ask whether anything is going amiss with contemporary capacity to acquire knowledge and interpret it intelligently through the examination paper." This borders closely on saying that we may not be managing to teach the young *how* to think rather than not giving them the right things to think about. The causes were suggested to be shared homes, radio and television disturbances, and unavoidable disruption of studies by compulsory war and national service. Changes in the general educational system possibly may also be accountable for a slightly different product "not so well equipped as yet to enter the professions."

Some or all of these points may be more or less true; it would be interesting to have a consensus of opinion and a summary of results from all professional examining bodies. Only thus can any real certainty be attained as to what are the academic levels of post-war results of examinations. What we can now observe and enter as a contribution to the discussion is a disconcerting reduction in practically all pass percentages for the recent Intermediate and Final "external" and "special" examinations of the R.I.B.A. The pass percentages inside the recognized schools is comparatively high and this can be held,

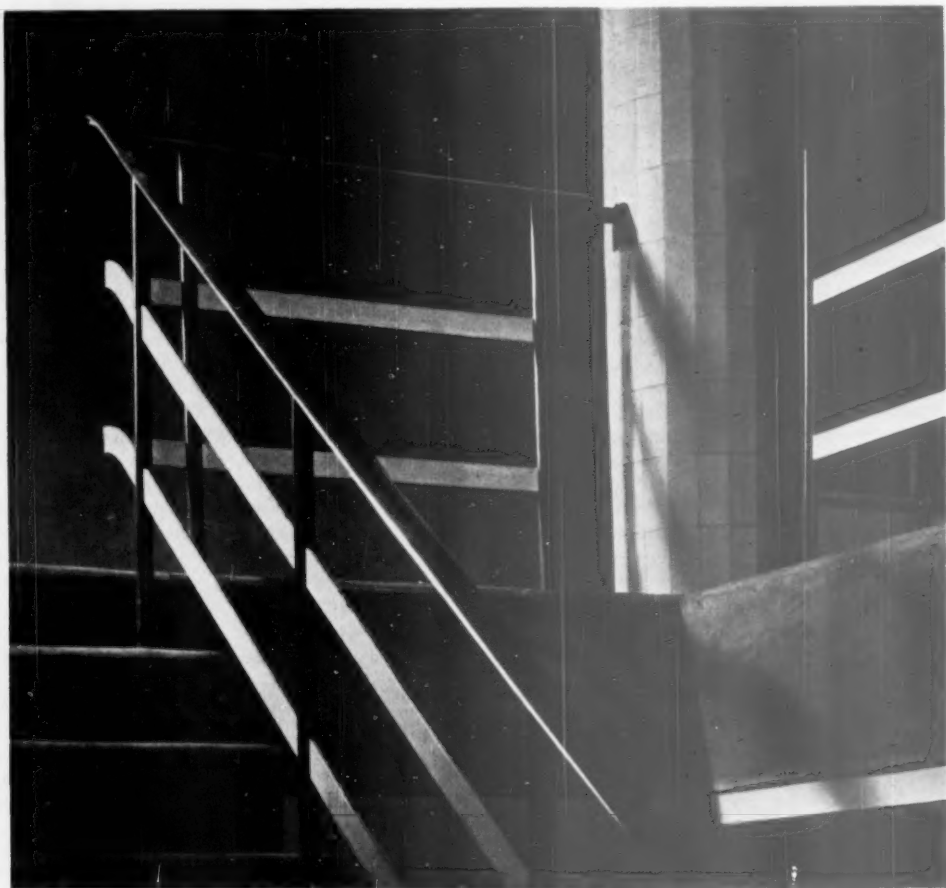
presumably, to be to the credit of standards maintained by the schools and by the watchful eyes of the Board of Architectural Education.

It is essential, however, to be certain that "internal" and "external" standards are similar, and it is very difficult to do so, in spite of every vigilance. It is obvious that factual and statistical subjects can be fairly well standardized; but where real difficulty is encountered in so complex and "all-round" a professional training as that of architecture is in the sphere of "design." Here there is undoubtedly some dissimilarity of standards as between "internals" and "externals" and even between some of the schools themselves.

The decrease in pass numbers, at a time when educational courses and numbers should be straightening out from post-war difficulties and any inequalities of the various sides of architectural education are matters which very intimately affect the profession

and the future of architecture as an art. Just as there should be no cleavage caused by "private" and "public" practice, so there should be no goats and sheep in the education of the future members of the profession. An "external" or "special" or a "school" examinee should be equal in rating and equally certain of similar examination treatment; for his future work will need basic standards of knowledge and method.

It may be, of course, that present tendencies are merely indicative of a passing phase, but that does not lessen the importance of a close watch upon them; for while the examination system lasts as a test for youthful ability, academic achievement will be the foundation of professional qualification. As a corollary there must be no compromise on standards of examination as a result of low percentages of passes, always provided that there can be established a reasonable stability and continuity of standards.



This detail shows the return of the bronze handrail against a column of the concourse in the new Administration Block of the Appleby Frodingham Steel Co. at Scunthorpe. The architect is Frederick Gibberd.

EVENTS AND COMMENTS

RAILWAY ARCHITECTURE

THE latest contribution to the Art and Technics series of introductions to architecture is "Railway Architecture," by Christian Barman. I am vaguely disappointed with it but I find it difficult to explain why. Mr. Barman, restricted to the forty pages of text in which to describe the frantic building efforts of the railway age, must have known that he was attempting the impossible. The book, or rather essay, for it is no more, deals with railway architecture without first giving the railway background. It presupposes a knowledge of railway development which I for one do not possess.

Even as an introduction to the subject it seems to me to fail for it attempts to give both general and detailed information. The book only deals with stations and except for a brief mention leaves out the mass of ancillary buildings which were not only essential parts of the whole but which also provided much of the most dramatic architecture.

The sixty pages of illustrations include pictures of many of our best stations but I am left with a feeling that somewhere I have seen better pictures. There are no plans and the planning of stations is scarcely mentioned in the text. As an introduction it should surely include advice on future reading but there is no bibliography and the only reference to outside sources is an acknowledgement note.

It is all the same a pleasant and well written little book, but of rather slight stature to be sold at fifteen shillings.

PIMLICO FLATS

IT was a happy coincidence, or perhaps it was intentional, that Peter Shephard should talk on the third programme on Powell and Moya's scheme at the end of the week in which it was published in the architectural papers. The number of third programme listeners who read the architectural papers is, I imagine, fairly small but all the same the two occurrences served to draw special attention to the completion of the first block of this very interesting scheme. Peter Shephard, I thought, sounded extremely well. His talk was neither too elementary for the architect nor too technical for the intelligent layman. One seldom hears an architect talk of modern architecture except in a somewhat apologetic way as one who has seen the light and is attempting to convert the Philistine. This talk took it for granted that the listener expected structure to be expressed in elevation and that simple proportion to take the place of tortured elevational treatment. I liked Mr. Shephard's confidence that his audience appreciated contemporary architecture and although I fear that confidence was probably misplaced I am sure that it was the correct line to take for we are not yet out of the monkey house where stylistic elevational trappings adorn the proscenium beneath which would-be architectural patriots stut while pouring out damnation on those who dare to call architecture anything but an art. Egad, sir! What a devilish suggestion. The fellow's a scoundrel.

ARCHITECTS AT SCHOOL

IT is appropriate that during the Presidency of Mr. S. E. T. Cusdin the A.A. should consider hospitals. The post-graduate symposium on hospital planning which was held last week was a great success. About a hundred and twenty architects from all over the

country heard some dozen specialists talk, each on one aspect of hospital design. The papers varied from ten to forty-five minutes in length and each was followed by a discussion. Such a full day's work might easily have become tiresome and it was greatly to the credit of the organisers that interest was kept up to the end. The administrative arrangements were excellent and I very much hope that the experiment will be repeated on other subjects. Professor Vines of Charing Cross Hospital was given the last word with a paper on "Doctor and Architect." This served as an admirable summing up of the day's work which was then nicely rounded off with a sherry party.

STRABISMAL OFFERINGS

I HEAR that Mr. Sidney Loweth, Kent County Architect and scourge of the A.B.T., offered an ingenious fly trap to the Festival Authorities which was unfortunately turned down on the grounds that an endless procession of suicidal flies would be unlikely to be forthcoming on the south bank. My suggestion is that the trap might be scaled up and used to keep the human attendance at the exhibition down.

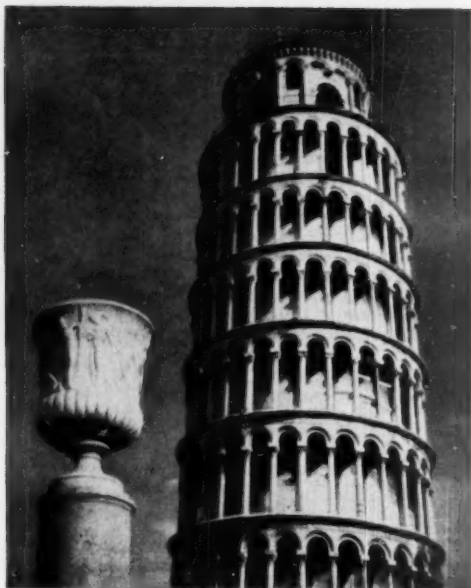
I believe that Mr. Loweth refers to the trap as being his design but I can only say that I think that if it were shown it might easily cause an action for infringement of patent for I have certainly heard of it before. However, patents are remarkable things and it may be that Mr. Loweth's particular patent lies in the size of the hole over the bucket of water, the number of rungs missing in the ladder, or the exact specification of the block of granite upon which the wise flies who see the hole and not the missing rung, fall and break their necks.

MISCELLANEOUS

BON Marché Bombers in Bloomsbury. An aeroplane for Christmas? £350 will buy a reliable aeroplane and free instruction to private pilot's licence—write Box 148, care of 7 Coptic Street,



"Rupert's going to be an architect.
There's no money in wool."



Tower and Vase, Pisa

Photo by A. L. Achavir

W.C.1. (*The Times*). The propinquity of the British Museum and the name of the street are a trifle unfortunate, are they not?

BUILDING RESEARCH? PROGRESS? PAH!

A GENTLEMAN described as being in the front rank of Dublin builders has had his house built with a glass roof thus "doing away with a dusty attic and providing an additional floor for children's playroom or adults' ballroom," says the press report. The gentleman now claims that he has a house of three storeys for the price of two. Furthermore he runs his central heating off his cooker, at no extra cost except for piping and plumbing and I should imagine with very little extra heat on the radiators. These are not the only good ideas thought out by this progressive builder—he refuses to have a telephone in either his house or his office.

FOOTPRINTS IN THE SAND

M. André Cutton et Jean Tschumi, désignés par l'U.I.A. pour faire partie du Jury du Concours Impérial D'Addis-Ababa, sont partis pour L'Ethiopie.

VIVE LE SPORT

A PRODIGIOUS programme of outdoor and indoor pastimes and *jeux sportifs* has been arranged for Festival Year. From Archery to Air Races, and Basket Ball to Billiards, devotees of manly pursuits will be stretching every nerve and steeling every sinew in a gigantic effort to play up, play up and play the game. Vast as the programme is, there is nothing truly remarkable about its national aspect except perhaps that there is to be a large international

football tournament in the middle of May and a bowls tournament at Paddington—possibly timed to coincide with the late arrival of a festival express to be named the Armada. It is on the South Bank, however, that British Sport is really to be given its head. There all that is best in the British Way of Life will be demonstrated in a small arena within the exhibition grounds. You will see netball by schoolgirls, table tennis for beginners, fencing in period costume, women cricketers at the nets, and that most breathless of all British outdoor sports, chess with live chessmen. Oh! Gladys, I can scarcely wait.

MOTOR CYCLE DESIGN

WHETHER you are a motor cycle fan or whether, like me, you just had to learn to ride one during the war because you were not a brigadier you will probably admit that motor cycles are extremely well designed. They seem to have developed smoothly from their earliest aided-push-bike stage to the latest T.T. models without passing through fancy fashions of any kind. Efficiency and reliability have always been put first. The rider's comfort has by the very nature of the thing received little attention. If you are interested I can thoroughly recommend "Motor Cycle Cavalcade" just published by Iliffes and written by "Ixon" of the Motor Cycle. It is full of photographs of machines from their first appearance to the present day. The text is in that racy brand of English which goes so well with leather coats, goggles and the smell of Castrol R.

A B N E R

MR. PERCY GOOD

Many readers who have known him at some time through his extremely wide field of activities will have learnt with great regret of the death of Mr. Percy Good, C.B.E., M.I.E.E., the Director of the British Standards Institution. He had been associated with B.S.I. from its earlier days, having joined the staff in 1913, only twelve years after the start of the original organization. In 1920 he became Deputy Director and in 1942 assumed charge of the whole organization as Director.

Having been trained as an electrical engineer he maintained this interest throughout his life, which culminated in the Presidency of the Institution of Electrical Engineers in 1947-48. Of his electrical interests illumination was the side which he developed particularly and he was a Past-President of the Illuminating Engineering Society.

Percy Good had recently begun to plan a future retirement from the B.S.I., probably to apply more of his energies to his many other associations and as a first step had arranged for the appointment of his deputy and successor who, incidentally, had only joined the B.S.I. a few days before his illness some two months ago.

Percy Good had the enthusiasm of a missionary for all matters of standardization but, with his apparent unlimited capacity for work, he took a very active part in the organizations associated with many other subjects, such as the Basic English Foundation, of which he was a Trustee, and several metropolitan polytechnic and technical institutes for which he was a member of the governing bodies. His death will not only be a great loss to B.S.I. but also to the very wide circle of friends and associates.

NEWS OF THE WEEK

Mr. W. H. Kininmonth, A.R.S.A., F.R.I.B.A., has been invited to prepare designs for the proposed new terminal buildings at Renfrew Airport. Mr. Kininmonth is a partner in the firm of Messrs. Rowand, Anderson, Kininmonth & Paul, 16 Rutland Square, Edinburgh.

The Central Land Board believe there may still be some owners of war-damaged property, entitled to claim a payment under the Town and Country Planning Act, 1947, who have not yet done so.

These claims can be made on certain "total loss" properties where the War Damage Commission assessed a value payment, and must be lodged with the Board before February 1, 1951.

The Board have published an explanatory leaflet on these claims—S.I.A. (War Damage), obtainable from the local offices of the Board and the War Damage Commission.

Payments are in cash and include interest. They are separate from the £300m. on which claims had to be lodged by June, 1949.

Edinburgh Corporation Planning Committee on December 6 recommended the adoption of proposals by Edinburgh University for the development of the George Square area as a University centre.

The Architects' Registration Council of the United Kingdom offer for award in June, 1951, certain Maintenance Scholarships in Architecture. The Scholarships will consist of a grant for the payment of one-third of the School fees and, when necessary, a maintenance allowance. The Scholarships will be renewable from year to year until the student has finished his or her School training. They will be available for Students of British nationality who could not otherwise afford such training to enable them to attend Architectural Schools approved by the Council. The Scholarships will be available both for students who have already begun their training and for students wishing to begin their training. Scholarships will not be granted to Students who will be less than 17 years of age on October 1 of the year in which the examination is taken.

Particulars and forms of application may be obtained from the Secretary to the Board of Architectural Education, Architects' Registration Council of the United Kingdom, 68 Portland Place, London, W.1.

Copies of previous year's examination papers may be obtained on payment of 6d.

The closing date for the receipt of applications, duly completed, is January 31, 1951.



Drawing by J. L. Berbiere, A.R.I.B.A., which was awarded the Unsworth Sketch Design Prize, 1950, of Liverpool Architectural Society.

The Council for Codes of Practice for Buildings has now issued for comment Code 402.101, "Hydrant Systems," prepared by a Committee convened by the Institution of Mechanical Engineers.

The code is in draft form and is subject to amendment in the light of comments which should be submitted by January 13, 1951.

Copies of the code may be obtained from the British Standards Institution, 24/28 Victoria Street, London, S.W.1, price 2/-, reference CP (B) 975.

The Housing Summary shows that the number of permanent houses completed in Great Britain during October was 17,603 compared with 17,398 in September.

The total number of houses completed under the post-war programme is now 945,261 (788,115 permanent and 157,146 temporary).

OBITUARY

The death was announced on December 4 of Harry Reginald Coales, A.R.I.B.A., of Cheshunt.

The death occurred on December 9, of Vincent Jerome Esch, F.R.I.B.A., of Surrey, aged 74.

The death occurred, on December 9, of Mr. Edward Percy Archer, F.R.I.B.A., of Great Baddow, Essex, at the age of 70.

The death also occurred on December 10, of Claude Paterson, A.R.I.B.A., of Oxford.

COMING EVENTS

R.I.B.A.

● December 19, at 6 p.m. "Developments in the Design and Construction of Furniture." Speaker: D. W. Pye.

EXHIBITIONS

December 11-23, at 10 a.m.-5 p.m. Saturdays 10 a.m.-1 p.m. At the Building Centre. "Regency Brighton."

December 18-January 13. At the Housing Centre. "Housing Associations' Post-War Housing Schemes."

Law Report

In the Chancery Division, before Mr. Justice Romer, counsel appearing for Mr. Sidney Kaye moved for an injunction to restrain Mr. Gabriel Newman from being directly or indirectly concerned in any profession or trade carried on at 52 Brook Street, W.1, or from practising as an architect within half-a-mile of those premises.

The motion was opposed by the defendant, for whom Mr. Stranders appeared.

Mr. Justice Romer said the motion was brought by plaintiff against his former partner. These two gentlemen entered into partnership as architects in June 1949, and the partnership was dissolved by consent in June 1950. They agreed to determine the tenancy of the business premises in Brook Street, and not to carry on any profession or trade upon the premises for two years from October 1, 1950. If either party committed a breach of this he agreed to pay £250 damages to the other. It was not disputed that this clause was broken in some measure by the defendant for a period of 27 days and the question was whether the covenant was a good one. Plaintiff was not asking for damages but for an injunction. His lordship said the covenant would restrain either of the parties from using the premises for such activities as a fishmonger, jeweller, greengrocer or anything else. The covenant was far wider than was necessary for the protection of either of the parties, and accordingly it was unenforceable. The injunction would be refused. By consent, the motion would be treated as the trial of the action, which would be dismissed, with costs.

CHANGE OF ADDRESS

Bernard Gold & Partners, Architects and Surveyors, 14 Old Queen Street, London, S.W.1, announce that their new address is 1/11, Hay Hill, Berkeley Square, London, W.1. Telephone: Mayfair 3811.

LANSBURY ARCHITECTURE EXHIBITION

ONE of the contributions made by the London County Council to the Festival of Britain 1951 is the priority given to the reconstruction of the Stepney and Poplar blitzed area. The district has been named Lansbury, and the works at present being carried out include schools, flats, houses, churches and a public market place. Each group of buildings has been designed for the L.C.C. by an independent firm of architects, and some of the housing has been done also by the Valuer to the Council. The scheme was fully illustrated in the A. & B.N. issue June 9, 1950.

The work is being pressed on quickly, and several of the schools, blocks of flats and houses will be ready and occupied by May 5, 1951, when the Exhibition opens: others will be in the course of construction.

At the centre of this area alongside the East India Dock Road will be the Festival Site, the administrative hub of Lansbury from the point of view of running the Exhibition. The site will be enclosed and an admission fee will be charged for entrance. Within the enclosure a number of smaller exhibitions, housed in temporary buildings, will be open to view. From this hub a clearly marked route will lead the visitor (well armed with information, pamphlets, maps, etc.) round the permanent buildings which are in course of construction. En route it will be possible to see the market in operation, the schools in use, certain show flats and houses completed and furnished, various residential groups, Adrian Gilbert Scott's Roman Catholic Church under construction, and many other matters of constructional interest.

The visitor will approach either by road from the west, down the East India Dock Road or by river bus to Limehouse Pier, and thence by a shuttle bus service.

First sign of the locations of the Exhibition will be a Vertical Feature consisting of an immense monotaower crane approximately 180 ft. high, painted white and with various devices swinging from the jib. This feature not only marks the site but is symbolic of the

great constructional effort which is being made in the East End. The crane will be floodlit at night. The architect for the feature is John Wright, A.R.I.B.A.

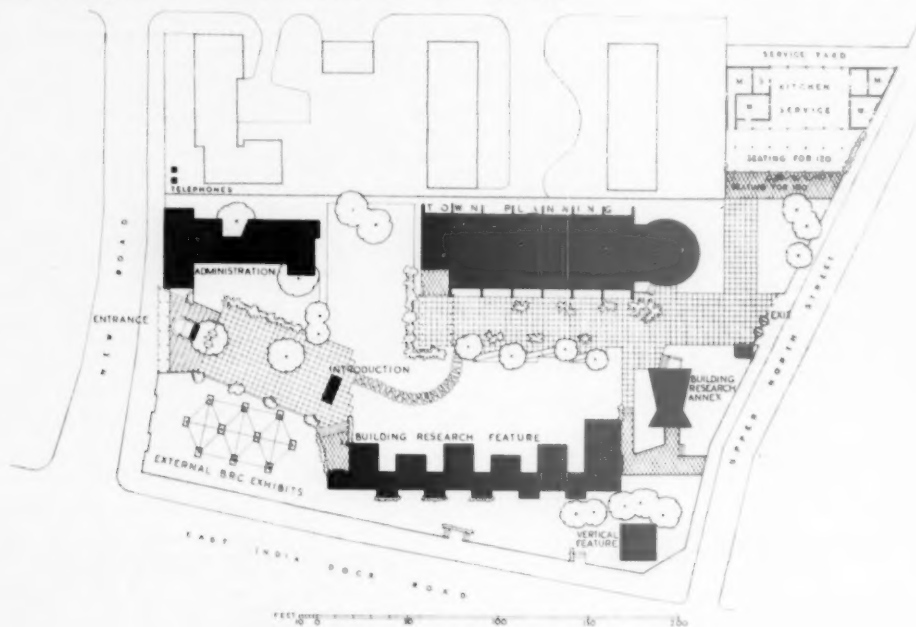
The visitor then turns left-handed into the New Road in which is situated the Main Entrance to the Exhibition, gay with turnstiles, information kiosks and a decorated, beflagged courtyard backed by existing plane trees.

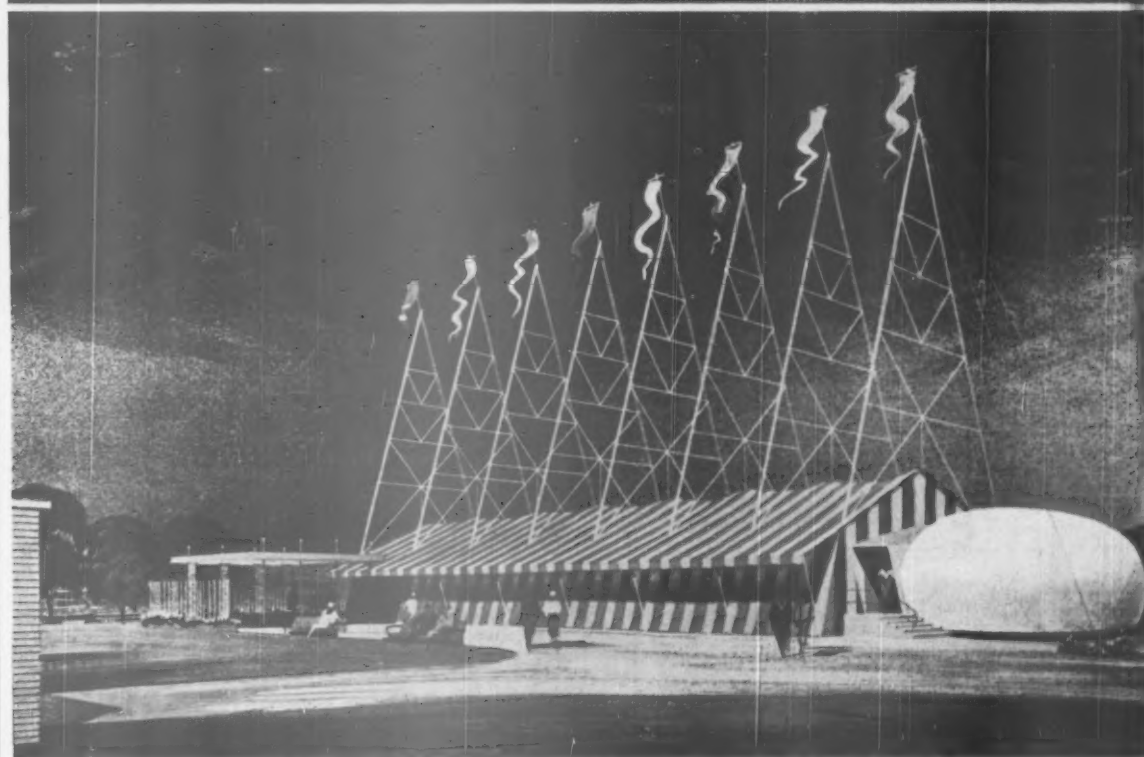
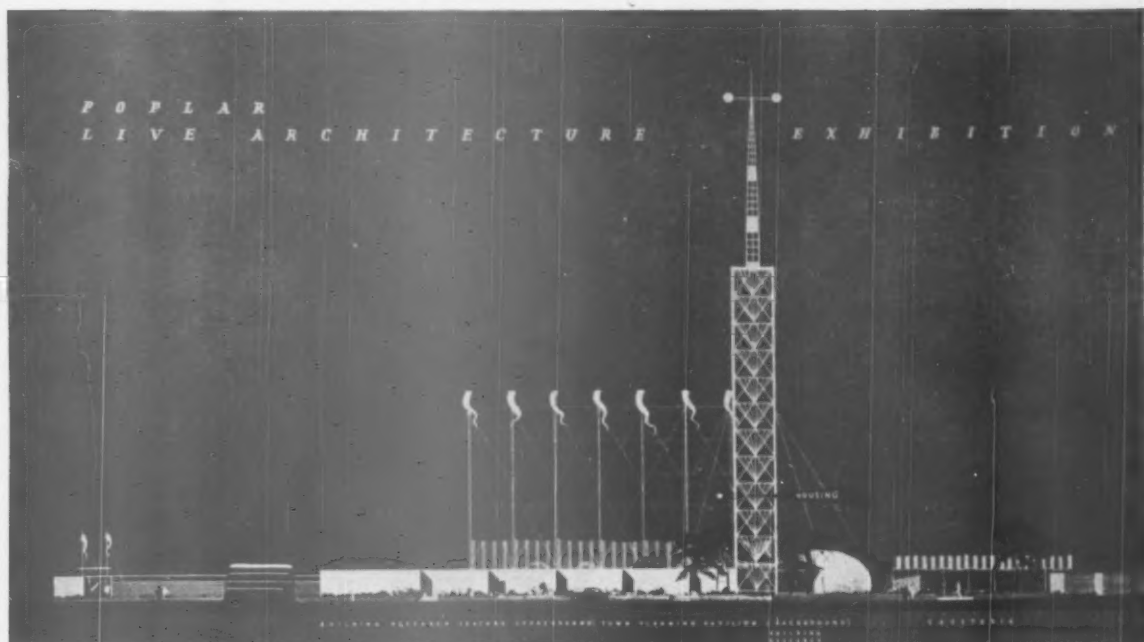
On the left-hand side lies the Administrative Block, the control room for the Exhibition, which provides facilities for staff, administration, and for the Press, with comfortable and well furnished space for important guests.

The visitor then enters the first main exhibit, the Building Research Feature, which is a long building containing examples of every kind of building research activity, including heating, lighting, durability and strength of materials. John Ratcliff, A.R.I.B.A., A.M.T.P.I., has designed this pavilion to contain material largely supplied by the Building Research Station. A Crazy House, a small and exciting object showing all the defects that can occur in house building, precedes the first exhibit.

Next comes a large tubular and canvas structure, the Town Planning Pavilion. This houses a town-planning exhibit and finishes with a large egg-shaped chamber which contains a diorama showing the reconstruction of the heart of an existing Town. The chamber is built of 2 in. thick plaster sprayed on to lathing. The Town Planning Pavilion is designed by Messrs. Hening & Chitty, F.R.I.B.A., who also designed the Administrative Block, smaller buildings and the layout and landscape work.

On leaving this exhibit the visitor can either go out of the festival site and circulate around Lansbury or he can enter the cafeteria designed in gaily coloured canvas and stock bricks by Miss Sadie Speight, A.R.I.B.A., in association with Mr. Leonard Manasseh, A.R.I.B.A.



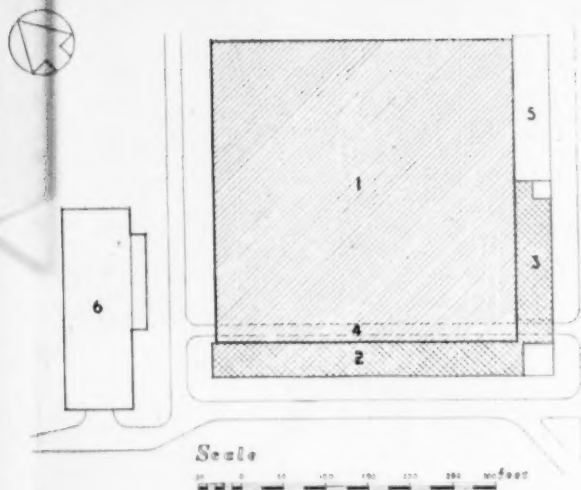


Top picture shows the exhibition in elevation from East India Dock Road, while below is a closer view of the town planning pavilion. The enclosure for the diorama of a New Town is shown on the extreme right.



**Appleby Frodingham
Steel Co., Scunthorpe
Administration Block
CENTRAL ENGINEERING SHOPS**

architect:
FREDERICK GIBBERD
F.R.I.B.A., M.T.P.I.



Scale

0 20 40 60 80 100 120 140 160 180 200 feet

BLOCK PLAN

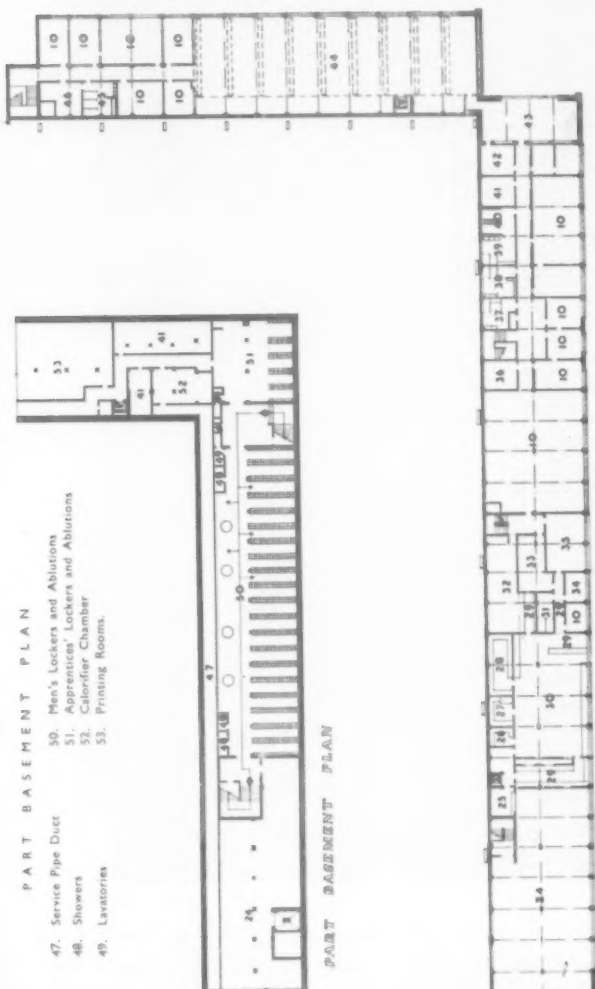
1. Maintenance Workshops
2. S.W. Wing
3. S.E. Wing
4. Service road
5. Future extension
6. Sub Station

THE buildings illustrated form the administration block to a new maintenance workshop at Scunthorpe, erected by the Appleby Frodingham Steel Co. as part of an extensive rebuilding programme.

The buildings are set in a vast industrial landscape, much of which has a splendid scale and character, and most of which is covered by dust from the industrial processes. It was felt that this environment must be accepted for what it was; that because the buildings are in a setting of gas mains, pylons, cooling towers, and the like, it was all the more important that they should be sensitively designed, because the industrial plant gains enormously by contrast with architecture and vice versa. Because of the problems arising from the dust-laden atmosphere and noise, it was decided that the buildings should be sealed from the outside air and artificially ventilated by filters and heated air;

PART BASEMENT PLAN

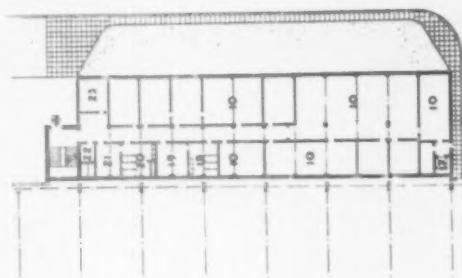
47. Service Pipe Duct
48. Showers
49. Lavatories
50. Men's Lockers and Ablutions
51. Apprentices' Lockers and Ablutions
52. Calorifier Chamber
53. Printing Rooms.



PART BASEMENT PLAN

FIRST FLOOR

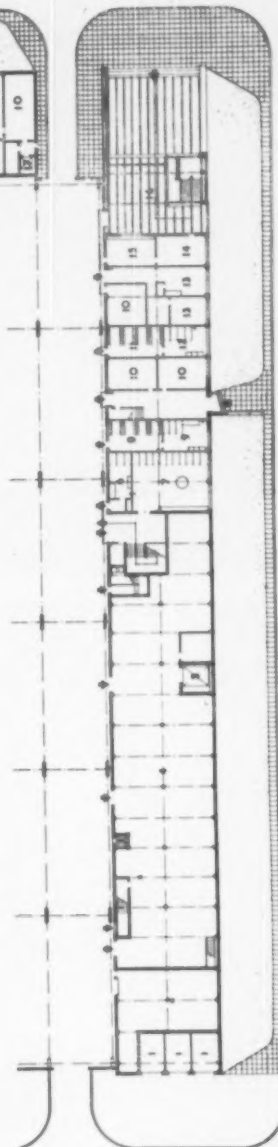
24. Workmen's Canteen
25. Shop
26. Dry Store
27. Larders
28. Vegetable Preparation
29. Service Kitchen
30. Lavatory
31. Apprentices' Canteen
32. Foreman's Canteen
33. Rest Room
34. Staff Canteen
35. Waiting Room
36. Managers' Lavatory
37. Female Staff Lavatory
38. Male Staff Lavatory
39. Locker Room
40. Store
41. Library
42. Lecture Room
43. Drawing Office
44. Male Staff Lavatory
45. Cloakroom



FIRST FLOOR PLAN

GROUND FLOOR PLAN

- CENTRAL ENGINEERING SHOPS
1. Transformer Houses
2. Switch Room
3. Kitchen Lift
4. Engineering Workshop Store
5. Stores Lift
6. Apprentices' Lavatory
7. Workmen's Lavatory
8. Foremen's Lockers
9. Foremen's Lavatory
10. Office
11. Women's Lockers
12. Women's Lavatory
13. First Aid
14. Production Control Room
15. Time and Pay Office
16. Concourse with access to Workmen's Lavatories and Lockers
17. Passenger Lift
18. Female Lavatory
19. Female Lockers
20. Male Lavatory
21. Male Lockers
22. Cleaner
23. Enquiries

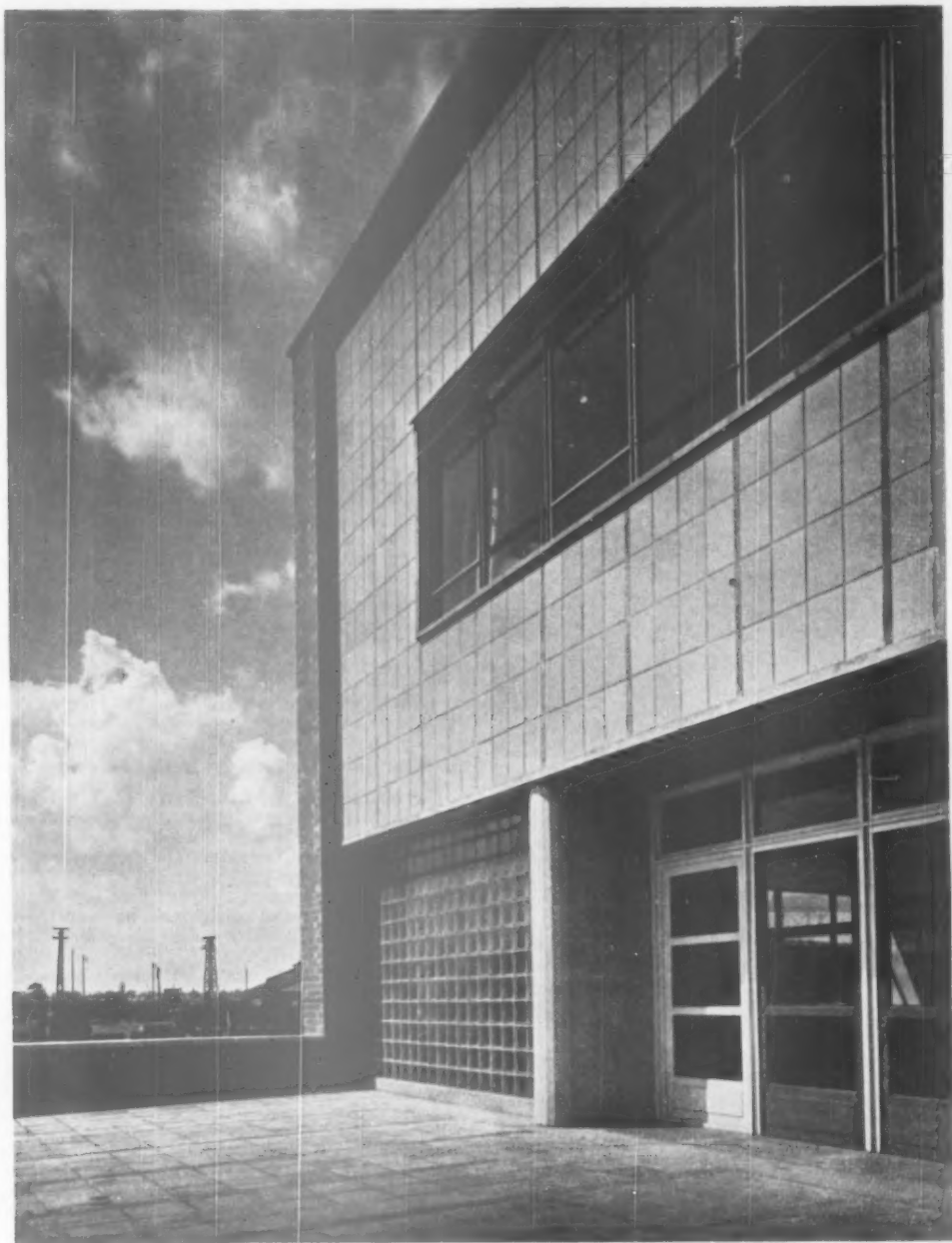


GROUND FLOOR

Scale
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 Feet



Top picture : S.W. Wing and Concourse entrance, with pale blue-grey faience tiling and glass brick panel lighting staircase to basement. Lower picture: Office entrance to S.W. wing. The doors are chrome yellow in white frames. The stone is polished travertine.



The concourse entrance with pale blue-grey faience tiling subdivided by wide joints into a large pattern which coincides with the window mullions and paving pattern. The doors are in battleship grey and white. The column is chrome yellow.

APPLEBY FRODINGHAM STEEL CO.'s NEW BUILDING
ARCHITECT: FREDERICK GIBBERD, F.R.I.B.A., M.T.P.I.



Detail of the wall surface showing the pattern formed from the header bricks and the ground floor pivoted metal windows and their stone surround.

and that all external surfaces should have hard surfaces and permanent colours which could be easily cleaned down.

There are two wings to the building, south-west and south-east, enclosing two sides of the workshops. The south-west wing accommodates stores, welfare and other accommodation concerned with the running of the workshops, and is directly connected to them. The south-east wing accommodates a drawing office and other technical accommodation used for the works generally. Only half this wing has been built at present, provision being made at a later date for an extension. A service road is run right through the workshop building, adjacent to the south-west wing, giving direct access to the stores and workshop space. This road passes through the administration building near to the junction of the two wings. As the building site consists of a layer some 9 ft. deep of waste material from the works, it was found economical to excavate the whole area of the administration building and form basements.

The Plan

The workmen's entrance is in the form of a concourse at the junction of the two wings. The men go down to the basement locker and ablutions rooms from the concourse and then up into the workshop, clocking-on racks being provided in the individual bays of the workshops. The circulation is reversed at the end of the shift and pay windows have been provided in the concourse. Foremen's and workwomen's lockers and lavatories all open direct off the workshops. Separate canteens for the workmen, apprentices, foremen and office staff, together with a large kitchen and stores, are planned on the first floor of the south-west wing. The workshop stores are on the ground and basement floors with access to the workshops either direct or by a four-ton goods lift.

The administrative and planning offices in the south-west wing have a separate entrance and staircase and direct access to the workshops. A lecture room and library is provided on the first floor in conjunc-

tion with apprentices' training. The drawing office in the south-east wing, 113 ft. by 40 ft., is lit by north-light glazing, and windows, on one wall, of glass bricks which provide diffused lighting with reduced glare. The lavatory and cloakroom accommodation is arranged in the rear wall adjoining the workshops, to help provide sound insulation from the workshops. Printing, photostat and multilith rooms are planned in the basement with a goods passenger lift to the drawing office.

Elevations

The external walls of the buildings are dark red bricks with a hard surface and they are laid with two stretchers to one header, so that the latter are given emphasis and the pattern improved. Since the offices are sealed from the open air their windows are designed as glass brick panels—to admit light and at the same time have a better degree of thermal insulation than ordinary glass—but a strip of clear glass window is placed under them to give a view. The windows have reconstructed stone heads and cills and stretch between the columns which, being faced with reconstructed stone, appear as mullions. The long bands of this window system are stopped before they reach the end elevations to resolve the strong horizontal direction; and the vertical proportion is given a stability through the broad brick expanses of the exceptionally high parapets.

On the return end elevation the main concourse entrance is emphasised by stretching the entrance doors and windows from wall to wall, and designing the wall surface above as a pattern of tiles, in which the large window lighting the library is set. The wall tiles are a blue-grey colour, contrasted with a chrome yellow tile face to the column.

Construction and Equipment

The building is steel framed to a 12 ft. 6 in. grid with reinforced concrete hollow tile floors and roof. External walls are 9 in. brickwork with 2 in. cavity and 3 in. foam slag inner skin. The glass brick glazing is built in panels between the stanchions and they are bedded on steel channels supported on tubular steel mullions between metal windows. The north lighting to the drawing office is of patent aluminium glazing and other windows are of steel. Window surrounds and copings are constructed of precast stonework cramped to the concrete backing and faience tiles are used at the concourse and office entrances. The roof is insulated with $\frac{1}{2}$ in. insulation board and finished with $\frac{3}{4}$ in. asphalt. A full system of ventilation has been provided, the air being filtered and heated in the two ventilation chambers on the roof; the ventilating inlet and extract trunking being contained in the false ceilings over the corridors. Surplus steam from the works is used for heating with calorifiers serving the radiators. Full kitchen equipment has been provided and this is generally electrically heated, although steam heating is used for hot cupboards, steamers and boiling pans.

Fluorescent lighting has been used in the drawing office, the fittings being arranged in continuous strips across the building and fixed high in the north lights. This provides a cut off which effectively reduces the number of fittings visible from the drawing boards. Other equipment provided includes a pneumatic tube system serving a station in each wing, impulse clocks, buzzers and G.P.O. and works automatic telephones.

The General Contractors were Messrs. John Mowlem and Co. Ltd., of Ebury Bridge-road, S.W.1.

APPLEBY FRODINGHAM STEEL CO ADMINISTRATION BLOCK

GENERAL CONTRACTORS: JOHN MOWLEM & COMPANY LTD

Asbestos Spray: Turners Asbestos Cement Co. Ltd.

Asphalt, Roofing, Tanking, Dampcourses and Coloured Flooring: Lincolnshire Rock Asphalt Co. Ltd.

Bricks: Brick Marketing Co. Ltd.

Cloakroom Fittings: Lockerbie & Wilkinson (Birmingham) Ltd.

Counter Panelling: Warerite Ltd.

Doors—Flush: Boulton & Paul Ltd.

Electrical Installation: W. J. Furse & Co. Ltd. (S.W. Wing).

F. H. Wheeler (Sheffield) Ltd. (S.E. Wing).

Floors—Hollow Tile: The Kleine Company Ltd.

Floor Springs: James Gibbons Ltd.

Glazed External Faience Tiling: British Clay Products Ltd.

Glazing—Patent: Williams & Williams Ltd.

Gates—Tubular Steel: The Morris Singer Co.

Glass Bricks: Pilkington Bros. Ltd.

Granwood Flooring: The Granwood Flooring Co. Ltd.

Heating and Ventilation: Alfred Grindrod & Co. Ltd. (S.E. Wing).
W. Richardson & Co. Ltd. (S.W. Wing).

Ironmongery: A. J. Binns, Ltd.,

Rowson Drew & Clydesdale Ltd.

Kitchen Equipment: Sumerling & Co. Ltd.

Lifts: Gimson & Co. (Leicester) Ltd.

Lighting Fittings: Benjamin Electric Ltd.

Troughton & Young Ltd.

Nameplates: The London Nameplate Manufacturing Co. Ltd.

Partition Blocks: Hydroprest Concrete Ltd. (Foamed Slag).

The London Brick Co. Ltd. (Clay).

Plumbing: J. H. Shouksmith & Sons Ltd.

Sanitary Fittings: Dent & Hellyer Ltd.

Shutters—Roller: John Booth & Sons (Bolton) Ltd.

Staircase Handrails: Grundy (Teddington) Ltd.

Stonework (Precast): The Hull Concrete Stone Co. Ltd.

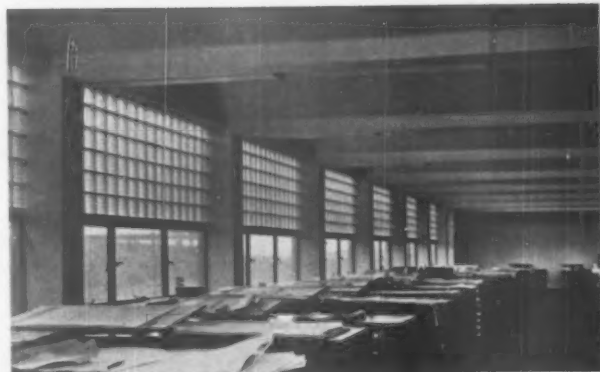
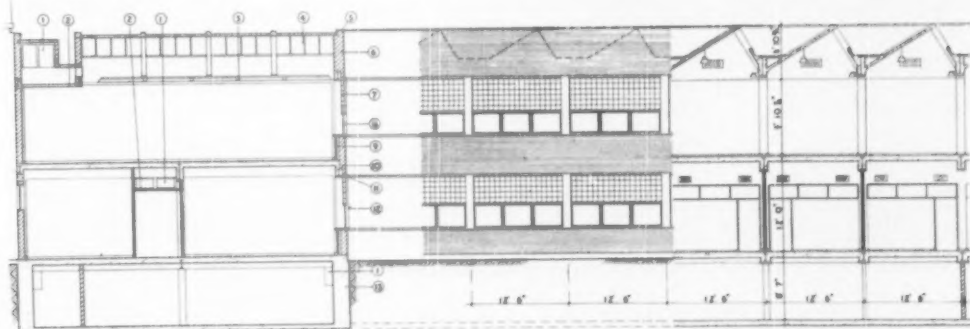
Terrazzo: Art Pavements and Decorations Ltd.

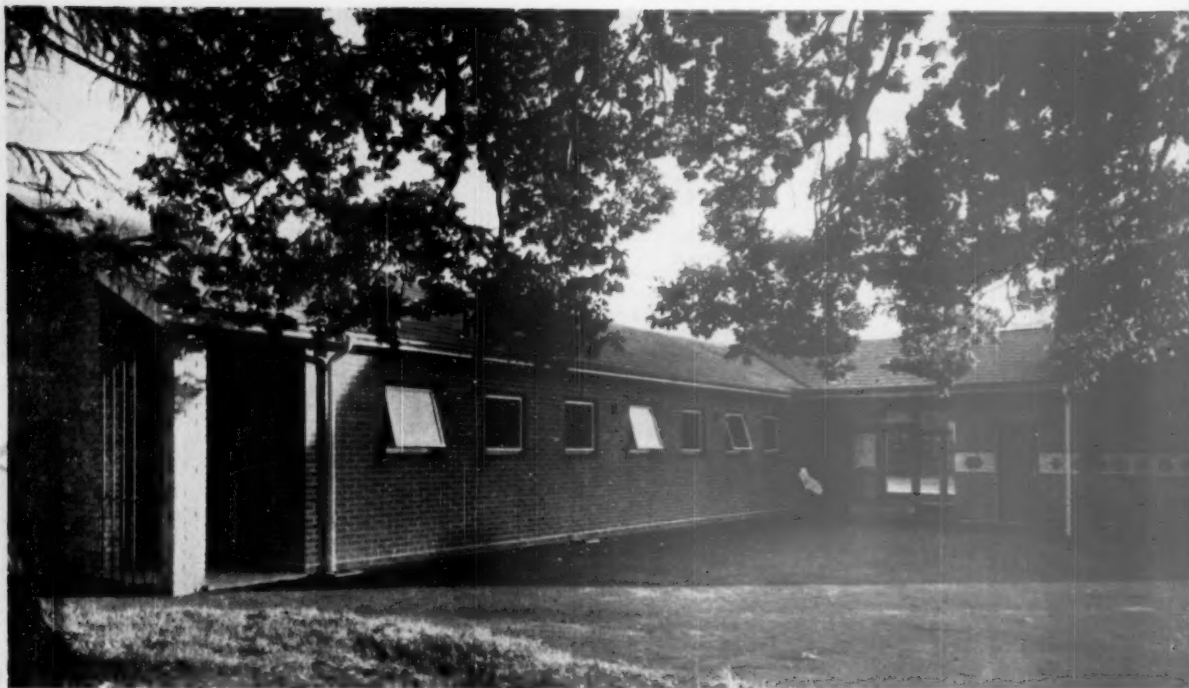
Windows—Metal: Williams & Williams Ltd.

Top picture: Drawing office. Middle picture: Workmen's canteen looking towards the servery. Colours: Beams and wall stanchions lemon yellow; centre stanchions blue; rear wall chocolate brown; and end wall pale grey. Ceiling panels of asbestos spray finished white with pale grey plastered surround. Counter front blue ribbed plastic sheets. Bottom picture: The floor of red quarry tiles is divided up in bands which coincide with the frames of the entrance doors and the jointing in the paving and tiling outside. Walls are in dark red hard bricks or painted plaster; the lower portion of the ceiling is in a rough cream colour render, and the higher portion is in a smooth high glossy paint finish; a sky blue to the sides of the beams and white to the ceiling itself. Doors are dark grey with white frames. Columns chrome yellow.

SECTION S.E. WING

- | | |
|-------------------------------|-----------------------------|
| 1. Ventilation ducts | 7. Glass bricks |
| 2. Suspended ceiling | 8. Metal windows |
| 3. Fluorescent light fittings | 9. 3" Foam slag |
| 4. Patent glazing | 10. 9" Brickwork |
| 5. Stone coping | 11. Stone ribs |
| 6. 14" Brickwork | 12. Stone piers |
| | 13. Concrete retaining wall |





The new entrance from north-west.

HIGH CROSS SCHOOL, HERTFORDSHIRE

architect: RICHARD SHEPPARD & PARTNERS

assistant architect: William Mullins

THE school at High Cross, erected in 1866, is a Church school and a typical Victorian structure. It is sited next to the church at the north end of the village and is surrounded by many large trees. It has one large teaching area divided by a folding timber partition. Heating is provided by large coke burners in the rooms and before the alterations this year the rooms were lit by oil lamps.

The architects were asked to replan the school around the existing building, to provide cloakrooms and to replace the poor working facilities and insanitary lavatory arrangements. It was decided to link the old and new building by a small entrance hall and the plan allows for the addition of classrooms in the future. When these rooms are added, the existing teaching space will serve the dual purpose of assembly hall and dining room.

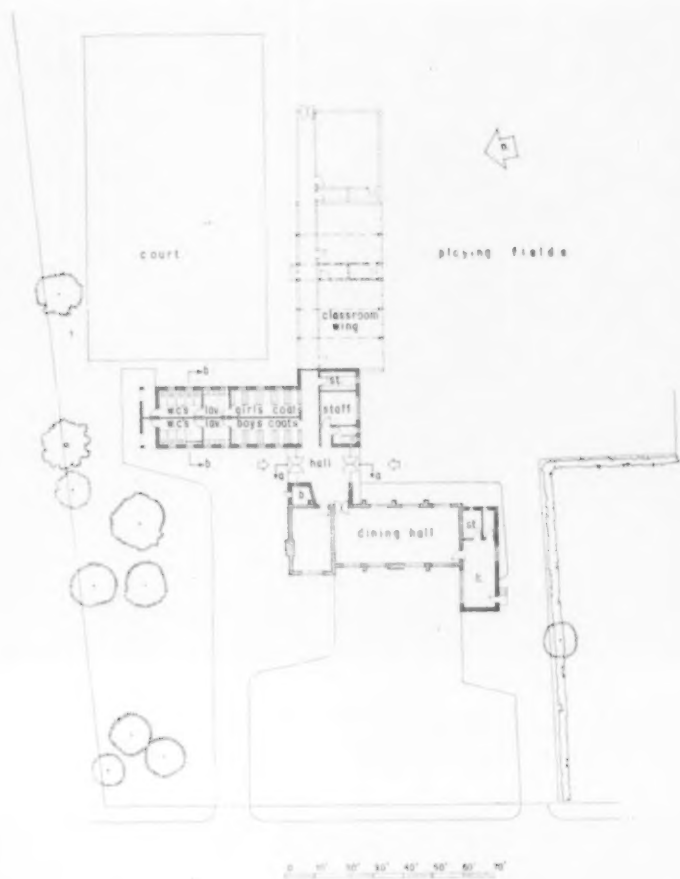
Externally care has been taken to match the colour and pointing of the existing brickwork. On one wall a Victorian pattern of blue and white bricks has been

carried into the new wall. Window cills are one inch solid slate and windows are of timber and top-hung. Windows, boarded eaves, gutters and down pipes are painted white and contrast sharply with the dull red brickwork and grey slate roof.

The photograph of the entrance hall shows a recess gaily painted a deep blue-green and the old door painted a lemon yellow. Skirtings, door frames and radiators are white and the other entrance hall walls are a pale grey-brown. The screen is oak and its vertical members structurally supporting the roof over. Concrete paving slabs with sharp white joints cover the entrance hall and corridor floors.

The ceiling to the cloakroom block has an interesting form which follows the line of the ceiling joists and struts from the 4½ in. spine wall. The cloakrooms are brightly painted with blue doors and pale lemon walls. The floors are red quarry tiles.

The General Contractors were Messrs. William Bignell Ltd., of Rickmansworth, Herts.



View showing the Victorian brick-pattern which has been continued in the new work.



Top picture: view of the new block from the South. Bottom picture: Entrance Hall. The recess is painted a deep blue-green, and the old door lemon-yellow. Skirtings and door frames are white, and the other walls in pale grey-brown.





New Factory at Duxford for Aero Research Limited

designed by OVE ARUP & PARTNERS, Consulting Engineers
BARBARA PRIESTLEY, A.R.I.B.A., Assistant Architect
I. L. HOLMES, A.M.I.C.E., Site Engineer

This new factory and ancillary buildings at Duxford are to accommodate a large extension to existing works. The product is synthetic resin glues of various types, for markets at home and abroad.

GENERAL LAYOUT

The Company visualises possible expansion taking place for many years to come and they therefore stipulated that a plan should be prepared for the future development of the whole of their large site. The present buildings were required to fit into an overall scheme in which each block could be fed by both railway sidings and roads.

The site has a gentle slope towards the River Cam, and surveys have revealed that it is possible to construct a railway siding from the main line with the main feeder going up the slope and the various sidings running along the lines of the contours. After consideration of other chemical works of this nature it was decided to split up the site into blocks of 300 feet widths, and fortunately the slope is such that this dimension gives a 3' 6" loading platform at the lower part of the block and a floor level flush with the road at the top of the block, which is almost ideal. The present factory has been built on the lowest of the development blocks, and the main access road has been constructed with a profile such that the future feeder roads are provided for.

The gentle slope towards the river is very useful in the design of the drains and services and full advantage has been taken of it.

DESIGN OF NEW FACTORY

The new factory consists of a production area with a floor to ceiling height of 50 feet, and a stores area with a height of 17 feet.

Production Area: The production area is divided into three sections for the three distinct processes involved. Empty drums are fed in from the back, and raw materials from the stores in front or piped from storage tanks. All

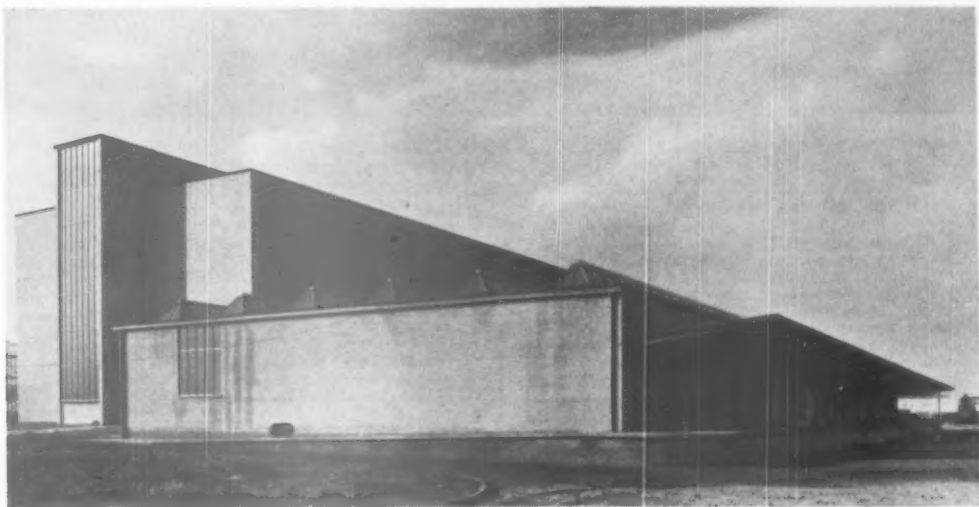
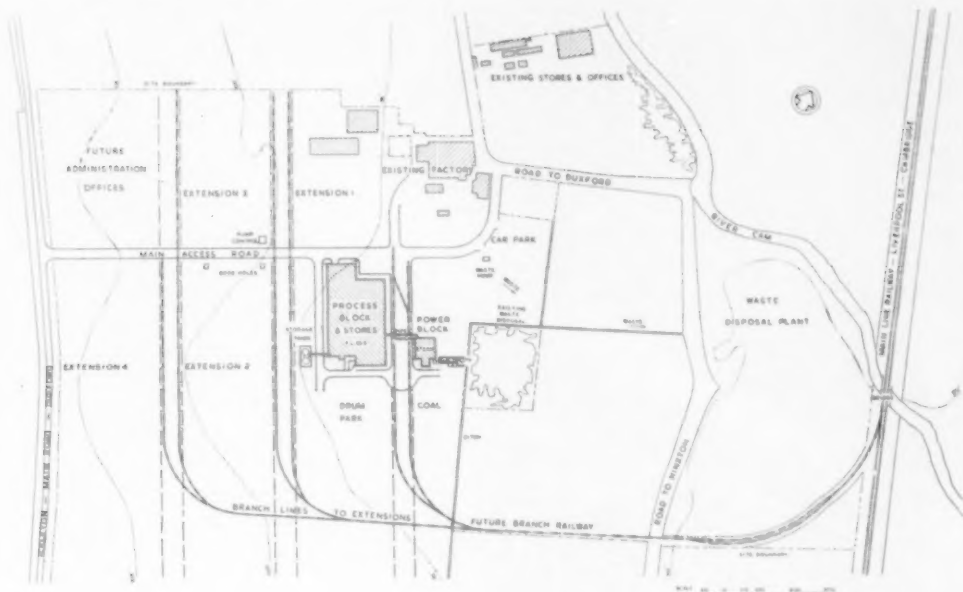
stages of the process are largely automatic, the product being piped or mechanically conveyed from one stage to another.

Supervision of the process is from laboratories and offices which have been placed 20 feet above ground so as to be at the same level as the main production floor. In order not to encroach on the production area, they have been built to cantilever out from the side of the building which also gives clearance over the road beneath. Balconies and walkways give access to the production plant.

In the main structure of the production area full use has been made of the main dividing cross walls. These have been framed in light steelwork for their full 50 feet height and clad with two skins of 4½ in. brickwork, leaving a 15 in. cavity. Spanning across the tops of these walls for the length of the building is a "spine" girder—a system of trusses which not only supports the 10 x 4½" roof beams but takes the horizontal wind loads on the upper parts of the building. It projects above the main roof level and provides a convenient space for service ducts, fans, storage tanks and similar plant.

The walls of the main production area are almost entirely of glass. The steel columns supporting them and the outer parts of the roof span the full 50 feet height, their horizontal reactions at roof level being absorbed by the "spine" girder. On the stores side the columns are 15" x 6" R.S.J.s.

On the other side the columns support also the inner half of the laboratories and are only 8" x 5", as the floor and roof of the laboratories act as horizontal beams and relieve the columns of part of the wind load. The outer edge of the laboratories is carried by a steel girder which spans across cantilevers framed out from the heavy main cross walls. Windows are fitted in between the bracing, and light asbestos cement cladding lined with 3" of cork forms the outer wall. The reinforced concrete fins not only provide protection from the south-west sun but stiffen the compression flange of the lattice girder.



View from the East.

Both end walls of the building are structurally important. The south wall has two vertical fins of latticed steel covered with brick skins which give longitudinal stability to the whole building. Between the fins is a panel of patent glazing. At the north end an unobstructed floor for the whole width of 75 feet was required up to the level of the stores roof. To take both the vertical and horizontal reactions from the "spine" girder the whole of the end wall above the 17 feet roof was designed as a deep lattice girder, the lattice members being 3" square tubes made from 3" x 1 1/2" channels welded together.

The patent glazing is made from extruded aluminium bars at 2' 0" centres with $\frac{1}{2}$ " Georgian wire rough cast glass and

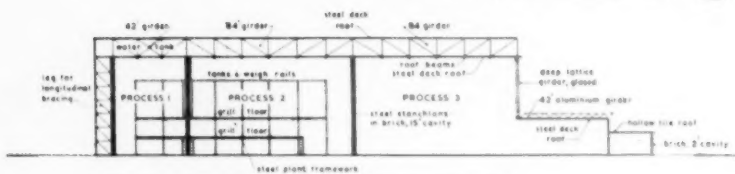
supported on horizontal 4" x 4" angles at 7' 6" centres. The lower parts of the walls are of 11" cavity brickwork and accommodate doors, windows, drum hatches and other openings.

Stores Area: The Stores is divided into incoming raw materials and outgoing processed resins. The area is laid out using the pallet size of the run-about stacker as a module. The stores are divided into compartments of 42 feet span by rows of V shape steel columns so that the compartments can, if necessary, be fenced off with steel mesh fencing.

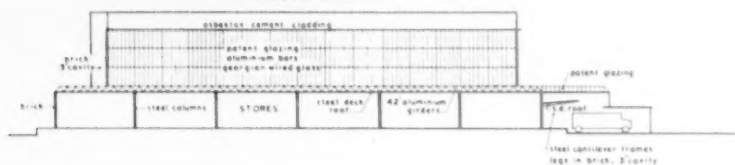
For the stores roof structure it was decided to use aluminium alloy extruded sections. To provide adequate lighting throughout the building a north-south light system was



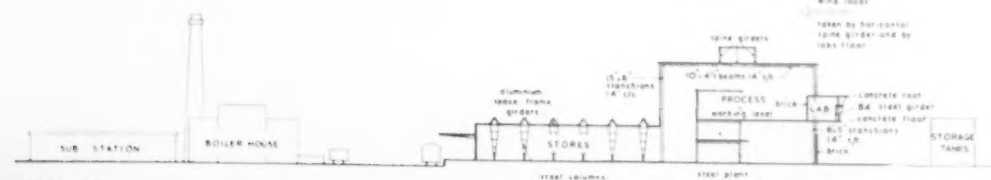
SECTION BB



SECTION AA



SECTION CC





"For the stores roof structure it was decided to use aluminium² extended sections. A north-south light system was evolved embodying a triangular space frame projecting above the general level of the roof."

evolved embodying a triangular space frame projecting above the general level of the roof. The sloping sides of the space frames are covered with patent glazing, while pressed steel deck spans between adjacent space frames without any purlins or intermediate supports. The extrusions for the space frames were specially designed to meet accurately the working stresses, to facilitate connections between members, and to give neat and economical junctions with the glazing and roofing. The overall cost of this roof proved to be competitive with that of other more orthodox forms, and provides a means of giving uniform light over a very large area and with a pleasing interior soffit.

Boiler House and Sub-station: The Boiler house and Sub-station are simple buildings as they are likely to be extended to several times their present area. They are on the lower part of the site so that the prevailing winds carry smoke away from the factory area.

The boiler house accommodates three steam boilers automatically fed and their auxiliary equipment. It has a central frame of welded steelwork providing a clerestory, with the lower roofs spanning on to load bearing brick walls.

The sub-station has Low Tension and High Tension switch rooms and provision for four transformers. It has a concrete pitched roof on load bearing brick walls.

CONSTRUCTION

The construction was divided into three main contracts: (1) roads, drains, services and foundations; (2) structural framework of steel and aluminium; and (3) the main building, boiler house, sub-station and other building works.

Roofs: Process Block and Boiler House, "3 channel" steel deck with $\frac{1}{2}$ " fibre board and single layer mineralised felt; Stores and canopy over platform, galvanised "Steleflor" deck with $\frac{1}{2}$ " fibre board and single layer mineralised felt; concrete roofs, two layer mineralised felt on $\frac{1}{2}$ " fibre board (Washrooms) or on 3" cell concrete (Laboratories).

Walls: 11" cavity brick with facings of buff coloured Uxbridge flints; Laboratories, asbestos cement corrugated sheeting insulated with 3" cork.

Partitions: Breeze block plastered, or studding and plaster on expanded metal.

Floors: Plain concrete with steel float finish; Laboratories, reinforced concrete, 3" cell concrete, quarry tile or latex finish; Washrooms, quarry tile finish.

Glazing: Patent glazing, aluminium bars and Georgian wired rough cast glass; elsewhere, plain glass.

Decorations: All structural steelwork painted oriental blue; window frames, white; door and frames, dark grey; main entrance doors, poppy red; Boiler House and Sub-station, white "Snowcem" on external common bricks.

MAIN CONTRACTORS:

GEE WALKER & SLATER LTD. (Building)

ENGLISH BRIDGE & STRUCTURAL ENGINEERING CO. LTD. (Structural Steel and Aluminium)

ROADS, FOUNDATIONS and SERVICES (William Sindall).

SUB-CONTRACTORS:

Asbestos Cement and Building Materials: Travis & Arnold Ltd.

Cell Concrete: Celcon Ltd.

Cork Lining: Alpine Insulation Ltd.

Electrical Work: Rashleigh Phipps & Co. Ltd.

Floors: A. H. Herbert & Co. Ltd. (Quarry Tile).

Grill Floors Ltd. (Steel).

Glazing—Patent: British Challenge Glazing Co. Ltd.

Handrailing: Grill Floors Ltd.

Heating Services: Sulzer Brothers Ltd.

Ironmongery: Dryad Metal Works Ltd.

Painting: Lees (Shelford) Ltd.

Plastering: W. A. Telling Ltd.

Roofs—Hollow Tile: Flooring Contracts (London) Ltd.

Rubber Flooring: L. Fishburn.

Sanitary Fittings: William E. Farrer Ltd.

Sliding Door Gear: British Trolley Track Co. Ltd.

Steel Deck and Roofing: Ruberoid Co. Ltd.

Windows—Steel: Williams & Williams Ltd.



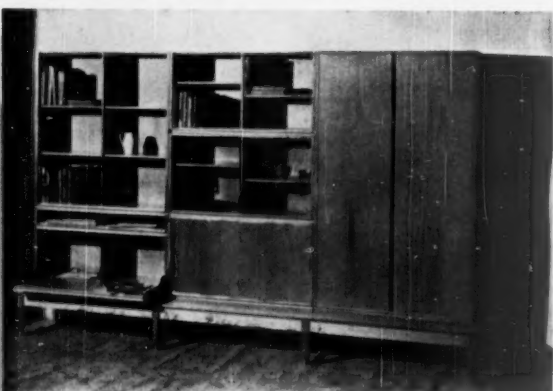
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7

1. Periodical table in beech, designed by Neville Ward, B.Arch., A.R.I.B.A., and Frank Austin, F.S.I.A.

2. Fireside chair designed by Jacques Groag, F.S.I.A.

3. & 4. Interchangeable units designed by R. D. Russell, R.D.I., F.S.I.A., and R. Y. Goodden, R.D.I., A.R.I.B.A., F.S.I.A.

5. Hanging bookcase in oak designed by Jacques Groag. Table in beech designed by R. D. Russell and R. Y. Goodden. 1 Fireside chair in beech designed by Jacques Groag.

6. Bookcase units designed by R. D. Russell and R. Y. Goodden. Wing chair by Jacques Groag.

7. Table in beech; Set of interchangeable units, and desk chair, all designed by R. D. Russell and R. Y. Goodden. All the furniture illustrated is made by Scottish firms for Scottish Furniture Manufacturers Ltd.

NEWS of the BUILDING INDUSTRY

HOSPITALITY

Comment on the accompanying picture is perhaps superfluous. The picture is comment enough: it shows washing accommodation at the Clapham Deep Shelters which are to be used to accommodate visitors to the Festival of Britain. Reports have stated that large numbers of overseas visitors are not expected. The number who do come will depend on circumstances outside the control of the Festival Authorities. But when thousands of pounds are being spent to show what Britain can do it seems little less than tragic to resort to this sort of makeshift if for children and provincial visitors. Here surely was a chance to provide temporary accommodation which might afterwards have been used to alleviate housing conditions. The "shelter" will accommodate 4,000 people at 3s. per night.



THE BUILDING ADVISORY COMMITTEE of the Manchester and District Advisory Council For Further Education has discussed at length the question of providing courses for foremen and has received reports on the experience of Colleges in the area.

The Committee has recommended that a day release course for apprentices in road construction should be provided at the Mill Street School of Building.

THE EXPORTS DEPARTMENT of the Board of Trade has been notified of an invitation for the supply of 200 single units of steel shelving by the United Nations, Lake Success, New York.

The closing date for the receipt of tenders is January 8, 1951.

Copies of the invitation, bid and acceptance, and specifications are available for issue to interested United Kingdom manufacturers in Room 1093 (Telephone: Victoria 9040, Extension 3010), Thames House North, Millbank, London, S.W.1. Quotations should be c. & f. New York City.

It would be appreciated if United Kingdom firms deciding to tender for the goods in question would notify this Department accordingly, quoting reference number C.R.E. (1B) 72101/50.

MR. W. T. HALL, C.I.E., C.S.I., has been appointed to the post of T.D.A. Regional Officer for Scotland.

LIVERPOOL CORPORATION CHIEF OFFICERS Committee is recommending the following increases of salary as from April 1 next year. Mr. H. T. Hough, City Engineer

★ INTEREST ★

and Surveyor, and Dr. Ronald Bradbury, City Architect and Housing Director, £3,000 to £3,250 and then to £3,500 and £3,750, and Mr. H. A. Hesketh, Deputy City Building Surveyor, from £1,250 to £1,350 from December 1.

A JOINT CONSULTATION COUNCIL of Architects and Builders has been formed by representatives of the North Wales Architectural Society and the North Wales area Committee of the National Federation of Building Trades Employers.

The Council held its first meeting recently at Chester and will meet quarterly to discuss matters of mutual interest and methods of improving building standards.

First chairman is Mr. N. F. Shanks, A.R.I.B.A., of Colwyn Bay, supported by Mr. R. R. Gittins, of Wrexham, chairman of the North Wales area Committee of the Builders Organisation. Joint Secretaries are: Mrs. F. C. Roberts, B.A.R.C., A.R.I.B.A., Mold, and Mr. J. Ellis Evans, F.C.A., Prestatyn.

MR. G. S. LINDGREN, Parliamentary Secretary to the Ministry of Town and Country Planning, recently received a joint deputation from the boroughs of Walthamstow, Chingford, Leyton, Wanstead and Woodford, and Ilford to discuss questions of the movement of industry and population to Harlow or to other towns in Essex.

The deputation stressed the need for urgent action to enable them to let people on the

waiting lists for houses know where they stood.

Mr. Lindgren said that the building of houses must be related to the movement of industry if dormitory development was to be avoided.

The deputation are to seek a discussion with the Minister of Health on their immediate housing problem.

KEIGHLEY TOWN COUNCIL have decided that out of the Council's total allocation of 120 houses for 1951, 24 houses will be assigned for building by private enterprise instead of only 12, originally assigned by the Labour-controlled Housing Committee. An amendment for the increase was carried by 21 votes to 16. Alderman Tack, who moved the amendment, made the claim that by granting licences for private building the Council would be actually saving the money of both ratepayer and taxpayer. He pointed out that every Council house built was subject to a subsidy of £16 10s. a year from the Imperial Exchequer, which amount was supplemented by £5 10s. from the local rate. In addition, Keighley had to find £8 per annum because houses were being let below an economic rent. Thus each house cost £30 a year and over a period of 60 years that would amount to £1,800, and therefore for 12 houses the saving in 60 years would be £21,600 of the public's money. He added: "I am suggesting we can double that amount and save £43,200." Mr. A. W. Smith (Lab.), replying to the debate, contended it was more important to consider the question of need rather than the financial aspect.

WAKEFIELD'S HOUSING and Town Plan-

ning Committee has decided that private enterprise may build one house in five of the 1951 allocation. The total number of houses completed in Wakefield since the war is 881.

R. G. TARRAN OF PERTH are now offering a hardwood prefabricated house at a cost of £550 to follow on their aluminium, one-storey factory-made house offered at a cost of £500. The builder claims that the price could be cut even further if Government control permitted mass production. The house is a mass production job and as such is being offered only through the Government to local authorities.

It is understood that the Secretary of State for Scotland is now studying the plans which have aroused great interest in Scotland.

BUILDING IN GAMBIA is complicated by the absence of concrete aggregate. The nearest deposits are found 70 to 80 miles away in the river Niger and supplies have to be brought down river by canoe, which is possible only in two or three months of the year. Prefabricated units are now being shipped from the U.K. 420 square yards of Bison floor units have recently been shipped to Gambia, 2,500 miles away, for two blocks of flats at Bathurst. The weight of the shipment was 85 tons and occupied 2,200 cubic feet. A further order has been received for the Victoria Hospital, Bathurst. 5,000 square yards will be shipped, weighing 719 tons and occupying 20,000 cubic feet.

OSRAM SILVERLIGHT LAMPS are now available in the 40W., 60W., and 100W. sizes, the 40W. and 60W. ratings having been added on December 1. In the Silverlight process the inside of a normal pearl type bulb is sprayed with minute particles of silica which increase the diffusion but absorb only a fraction of the light emitted by the filament.

EDINBURGH CORPORATION HOUSING COMMITTEE have decided that for three months—December, January and February—six hours overtime each Sunday shall be worked on all Corporation housing sites. Representatives of the operatives had reported that the present system of working under artificial light in the evenings was giving rise to difficulties.

DESIGN REVIEW, which will be housed in seven arches under Waterloo Bridge in the South Bank Exhibition, will offer home and overseas visitors a combined information service and catalogue containing some 20,000-30,000 photographs and samples (for flat items), representative of the best in current British manufactured products.

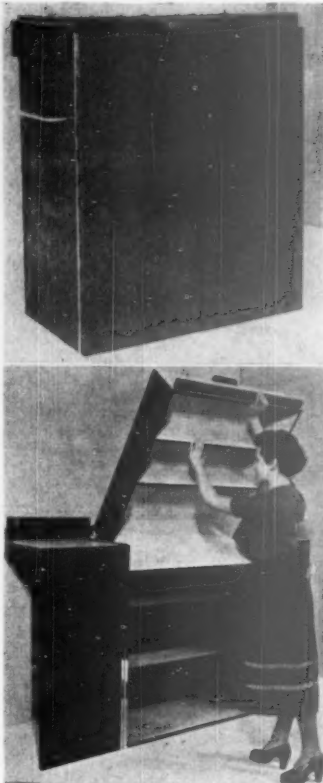
Design Review is a public display intended primarily for visitors such as industrial executives and trade buyers.

Neville Condor, A.R.I.B.A., A.A.D.P. (Hons.), Patience Clifford, A.R.I.B.A., A.A.D.P., and Clive Seligman, A.R.I.B.A., are responsible for the lay-out and decor of Design Review.

THE PRESIDENT of the London Builders Foremen's Association, Mr. G. Winstanley, in his final presidential address, said that the association (which was formed this year) is enrolling many new members of very high quality. Applications are being received from qualified men in the Middle East. These applications are not at present allowed for in the existing constitution but would have to be dealt with.

AN ORDER indicating the scope of the Census of Production to be taken in 1951 in relation to the year 1950 has been made by the Board of Trade. Undertakings which are wholly or mainly engaged in building contracting and civil engineering contracting are excluded from the census.

THE QUASI-ARC COMPANY LIMITED of Bilston, Staffs., are holding a course of



A complementary fitting to the transportable bar illustrated in last week's issue. This is a folding display cabinet constructed from Waverite. This unit was shown for the first time at the plastics exhibition held by Bakelite Ltd. and Waverite Ltd. at Glasgow in November. Dimensions are 3' 6" high x 3' 0" x 1' 6" deep when closed and 7' 0" x 6' 0" x 1' 6" deep open. Shelf arrangement is adaptable. There are no loose accessories such as nuts and bolts.

12 lectures on "The Design of Welded Structures" during the early part of next year.

The Course will be held at the Institute of Marine Engineers, 85 Minories, London, E.C.3, near the Tower of London. Lectures will commence at 4.30 p.m. and will continue until 6 p.m.

The Course is for structural designers and draughtsmen already familiar with structural design methods. Lectures will be given on Design of Trusses, Design of Welded Plate Girders and built up columns, Physical properties of welds, estimating and costing of Arc Welded Work, Welded Portal and Building Frames, as well as on Practical and Metallurgical aspects of Arc Welding which affect the design of structures.

The lecturers will be drawn from the Technical staff of the Quasi-Arc Company Limited, Bilston. Attendance is restricted and applications should be made to Mr. A. G. Thompson, Manager, Constructional Design Department.

SPEAKING OF SOFTWOODS at recent Timber Trade Federation Dinner following the final decontrol of softwoods, Mr. T. A. Storey, Chairman of the National Softwood Importers Section, said that it was vitally necessary to restore the opportunity for timber

to compete on merit with substitutes. The only way to do so was by the return to the trade of the power to purchase the country's needs in the various world markets. The first small measure of freedom had been restored. If the Government had accepted the representations made to it from 1946-1949 the conditions would have been fairer to the trade than those presented by the recent decontrol. The newly won freedom must now coincide with a rise in prices which the trade is powerless to prevent, and the effect of which it can only strive to minimise. "If," said Mr. Storey, "we are forced to view our policy as a trade exclusively from the angle of commercial prudence, there must be no inequities at a later date as to whether the trade had or had not lived up to its claim that it can purchase more wood and of a better specification than the Timber Control."

Mr. J. L. Baynes, chairman of the softwood decontrol committee of the Timber Trade, said that during the next two months it would be sometimes impossible to supply customers' needs but that the supply position for 1951 was more hopeful. An estimate of possibly 1,250,000 for the Government to sell to the trade during the year was not, Mr. Baynes thought, unduly optimistic. "It must," said Mr. Baynes "be made abundantly clear to consumers generally that these Government purchases have been made at a very heavy advance on last year's figures, and as the Government is not willing to subsidize our commodity, the price which the trade will have to pay is bound to be affected by the much larger quantities bought by the Government from dollar countries. . . the public should know that the inevitable rise in the price of softwood is in no way related to the decision to revert to private buying, but had actually taken place before that decision was made."

THE BRITISH VICE-CONSUL at Spokane, Washington, reports that there is a big demand in his area for American pattern w.c.s. with low down cistern. United Kingdom manufacturers who are interested should send full details of their products to British Imports Spokane, 508 Peyton Building, Spokane Washington. Prices should be quoted c.i.f. in dollars if possible.

THE UNITED KINGDOM TRADE COMMISSIONER at Auckland, New Zealand, has very little information regarding the types of prefabricated houses made by United Kingdom manufacturers and desires to interest the City Council at Auckland in timber prefabricated houses manufactured in the United Kingdom.

It is understood that the Council is interested in specifications of a three bedroomed house manufactured in Sweden, of 1,000 square feet floor space, each costing about £1,800 erected apart from the cost of land. It is stated that 250 identical houses could be delivered in 18 months. The erection time, apart from concreting was stated to be 100 man hours.

Firms interested in this inquiry should forward full particulars, drawings, etc., as soon as possible to the Town Clerk, Auckland City Council, Auckland. The information should include details of erection time and cost, delivery periods, etc.

Copies of letters and literature, etc., should be forwarded to Room 412, Dilworth Building, Queen Street, (P.O. Box 1476), Auckland, C.I., New Zealand.

JAMES WALLACE, L.R.I.B.A., F.R.I.A.S., has acquired the practice of the late William Gladstone, architect, 172 Bath Street, Glasgow.

THE NEW HOSPITAL CENTRE in Dundee is estimated to cost £3,000,000. Work on the Centre may be begun in 1956. The Eastern Regional Hospital Board, have been given this

(Continued on page 659)

GOOD, BAD OR INDIFFERENT ?

By A. FOREMAN

No. 15

Sizes and Positions of Locks —1

ONE of the effects of timber economy has been a reduction in the sizes of stiles and rails of doors which has made it even more important to take care in choosing and fixing locks and latches if they are to work properly and look right. Unfortunately locks are often not given sufficient attention so one sees doors whose appearance has been spoiled.

I do not like rim locks, lock-plates or roses which partly overlap the mouldings of a panelled door as these spoil the appearance of the doors and sometimes leave pockets which it is almost impossible to clean. The size of locks and furniture must be related to the width of the members of the doors being used. What is more important is the width "on the flat" of the stiles and rails because the mouldings reduce these widths considerably. It is worth having the doors mortised at the maker's works where they may be mortised more accurately and more cheaply. If a lock mortise is to be cut after the door is made, and especially on the job, it will probably have to be done by hand so a margin to allow for the mortise being cut a little deeper than the lock must be provided.

The height of the lock is quite important. Ideally the lock should be at a convenient height as well as just right on the door itself. I think it looks very bad if the handle is nearly, but not quite, opposite the centre of a rail or small panel. The height of the lock is best measured from the top of the door because the bottom is often cut away to clear the floor covering or for fitting a threshold.

A word of warning is necessary in connection with metal door frames. For these the position of the lock has to be decided before the frames are made because a hole is punched out during the first process when the steel strip is cut to size. B.S. 1425 "Metal door frames" specifies standard positions to suit upright mortise locks at 3 ft. 2 in. or cylinder latches at 3 ft. 1 in. from the top of the door. If you want any other position you have to tell the maker when ordering the frames.

Admittedly locks have to be limited in size to suit the present stiles of doors but locks which are too small bring the handles and keys so close to the edge of the doors that you can't turn them without barking your knuckles, especially on the sides of the doors next to the stops. For example, the standard 3 in. lock has a "back-set" of $\frac{1}{4}$ in., that is only just enough to make it possible to use a knob-type of handle. If a smaller lock is used the back-set may be only $\frac{1}{8}$ in. and you cannot use a knob, at any rate on the side of the door next to the stop. The alternative, of course, is to use a lever handle but these need selection with special care if they are to give long service.

It is not easy to fit a good mechanism into small locks, except when they are very expensive, and therefore when small locks are used they should be carefully examined to see that they are a sound job. $\frac{1}{4}$ in. and $\frac{1}{8}$ in. mortise locks are now being made by most reputable firms but I should not like to use anything smaller than this unless it was a hand-made lock or unless I knew the manufacturer well enough to accept his assurance that it would be all right, the dangers being that, if the lock is reduced in size, either the back-set will be too small or the mechanism

will suffer from being cramped into a small case.

An alternative solution is to use a mortise or tubular latch having handles but no key. These can however be locked from one side of the door by using lever handles with a locking catch fitted in one handle. These are adequate for such purposes as bathroom doors but many people like to be able to lock a bedroom door from either side. The tubular latch is fitted by boring a hole, about $\frac{1}{2}$ in. diameter, in the edge of the door; this sounds easy enough but remember that the hole has to be absolutely horizontal and parallel with

the face of the door or the latch will not fit flush with the edge of the door. The best way is to use a jig consisting of a length of tube fixed to a plate which will keep the drill in correct alignment.

The size of the lock and its back-set also control the width of any lock-plate or rose which is to be fitted on the stile. If you take the width on the flat of the stile, deduct the back-set of the lock, and then multiply by 2, this gives the maximum width of the plate or the diameter of the rose.

For example: $3\frac{1}{2}$ in. stile— $2\frac{1}{4}$ in. back-set = $1\text{ in.} \times 2 = 2\text{ in.}$ plate or rose.

COSTING OF BUILDING WORK

by S. Howard Withey

THE amount of capital invested in building machinery and plant is, of course, very substantial, and while many engineers and site foremen now keep elaborate records of capital expenditure, the losses arising from the unavoidable decline of value are not always subjected to scientific treatment, with the result that the figures shown on some balance sheets bear little relation to the amount of unrecovered investment in respect of which the stockholders expect, sooner or later, to be reimbursed.

In normal times, builders and contractors make provision on a fairly generous scale for depreciation of equipment due to wear and tear, obsolescence, effluxion of time and other deteriorating factors, and the same applies to proprietors of saw mills, joinery works and stone yards associated with large building firms. Owing to the steep rise in costs of replacements, however, it is now difficult to reserve adequate sums for the renewal of essential equipment, and in some instances head office managements have deferred consideration of the problem of asset depreciation.

It cannot be denied that as a result of progressive design, many machine components and specialities now embody highly skilled workmanship. Engineers are constantly designing equipment calculated to reduce building costs, while new and improved handling methods are continually being devised, but many firms engaged in the building and allied trades are now reaching that stage where the productive equipment cannot be employed without loss of output, idle machine hours and considerable waste. In many yards and workshops at the present time the continuity of operations depends almost entirely on the nature and variety of the facilities and appliances which are available for carrying out repairs and effecting adjustments, and the adequacy or otherwise of existing auxiliary plant and accessories may be the most vital factor to be taken into consideration in determining the figures to be incorporated in costs and charged against contracts.

Decrease in capital value of a productive installation or group may be the result of actual physical deterioration or it may be caused by developments in scientific research, invention, or labour-saving. When the cost of repairs, renewals, cleaning, overhauling and adjusting does not vary materially as between one financial or working period and another,

an equal proportion of the original capital cost of building equipment may be written off each year and included in the building costs. This should be done in such a way that at the end of the period of service or useful life the book value, including the transport charges and any foundation expenses, will be reduced to nil or a purely nominal figure. If maintenance costs are likely to expand each year with the gradual decline in capital value, it is usually advisable to apply the "percentage" method of computation whereby the asset account is subjected to annual percentage deductions based on the diminished book value. The reduction in the annual charge for depreciation would then provide the margin needed to meet the growing upkeep costs.

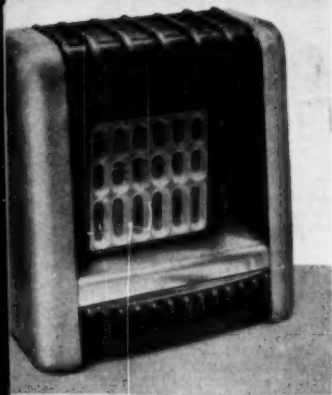
Expenditure on plant repairs and renewals is sometimes posted direct from the cash book to the debit side of a general repairs and renewals account kept in the expenses ledger; it should be borne in mind that if the book value of a displaced machine or tool has already been written off and charged against the building operations, the full cost of replacement should be debited to the appropriate asset account. Items to be capitalised can be readily collected in the form of monthly or other periodical totals for ledger posting purposes by using a pattern of bought day book or purchases journal which has been provided by the printer with separate columns or sections for the systematic classification of the expenditure under definite heads.

In those cases where interest on capital is an important factor it is advisable to make adequate provision by adding interest at a fixed rate to the debit balance outstanding at the beginning of each year, and to spread the total burden, i.e., depreciation and interest on capital, over a definite period in the form of equal annual instalments for inclusion in the building costs. Units or groups of plant which are difficult or impossible to assess by any method referred to above should be revalued periodically by a professional valuer or by a building trade expert, the decline in capital value being charged against the current operations in one amount. My next article will include examples illustrating the advantages to be gained by applying the "percentage" method of computing and recording depreciation for inclusion in the building costs.

SERVICES—HEATING

B 3/6

The small portable gas fire illustrated measures 10-7/8 inches high x 9 1/2 inches wide x 8 1/2 inches in depth. This model was produced for the first time this year, is now going into production, therefore supplies are limited. The finish is of heat resistant cream enamel with chromium plated reflector. The flat top is ribbed to take kettles, etc., for boiling or simmering. Gas consumption is rated at 8.5 cubic feet per hour. The price is reasonable.



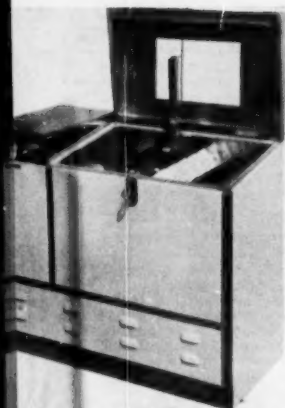
FITTINGS—SINKS, ETC.

C 2 5

This fully automatic dish washer, recently marketed by a firm which has just opened a London showroom, is the result of five years' research. Running cost is said to be less than 1d. per wash with a water consumption of 4 gallons, which is drawn from an integral storage tank fitted with a 5 k.w. heater.

The capacity is approximately 40 pieces of crockery and 100 pieces of cutlery. When the wash is completed the machine automatically drains itself and cuts out. The contents dry by their own heat.

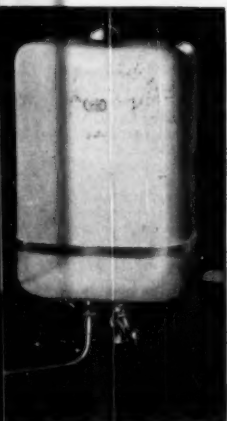
The tank, lid, work top and kicking board are of stainless steel; other parts are of aluminium, bonderized and stove enamelled. The dimensions of this washer, which has been designed primarily, though not solely for hospitals, canteens, hotels, etc., are 42 inches x 21 inches x 36 inches high.



SERVICES—WATER HEATING

B 6 1

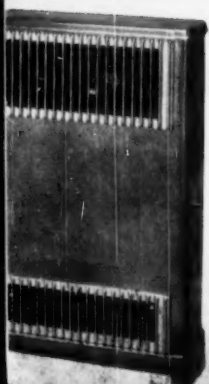
This heater has now been on the market for eighteen months. It is of the electric storage type suitable for sink and basin use. The weight, sometimes an important factor when fixing, is 28 lbs. Dimensions are 18 1/2 inches high x 13 inches wide x 7 1/2 inches. This type of heater can be attached to supply tank or main service pipes. It requires no expansion pipe or overflow. Finish may be in pastel blue or green, cream or white enamel. Fittings, including the long swivel swan neck, are chromium plated. The rating is 750 watts.



SERVICES—HEATING

B 3 7

A gas fed space heater, 6 inches deep x 30 inches high x 18 1/2 inches wide designed for use in halls, shops and offices. Consumption is 18.20 cu. ft. per hour; the maximum input being 16,000 B.Th.U.s per hour. Gas rate control is by screw operated needle valve. The heater is constructed of heavy gauge steel with cast grilles. The standard finish is bronze and gold. The seven burners are ignited through the base grille which is fitted with a glass panel.



MOSAICS

The names and addresses of manufacturers of any item illustrated in MOSAICS, together with more detailed information relating to their products—including price and availability—will be forwarded to readers on request.

Letters should quote the serial number and be addressed to:

The Associate Editor,
The Architect and Building News,
Dorset House,
Stamford Street, S.E.1.

Please mark the envelope MOSAICS

INFORMATION AND CATALOGUES RECEIVED

* "Clay Brickmaking in Great Britain" published by H.M.S.O., 3s., is one of a series prepared on behalf of the Technical Committee of the National Brick Advisory Council. The contents include a survey of the methods used and tables giving numbers of clay brickmaking plants, classified by type of clay, process and productive capacity. A series of maps shows the distribution throughout England for bricks made by various processes. A second series shows the area densities.

* Detailed information of Excavators, Drag Shovels, Face Shovels, Grabbing Cranes and other plant, will be found in the brochure issued by Blaw Knox Ltd., of Clifton House, Euston Road, N.W.1. This is a well illustrated catalogue, giving specification and dimensions of the working range of each attachment.

* "The Crabtree," sent to us by J. A. Crabtree & Co. Ltd., contains news of some of the British-built Machine Tools and Equipment which will be exhibited at the Canadian International Trade Fair at Toronto. It also gives information on the mineral vermiculite, which can be used as a substitute for sand and there is a useful little article dealing with the method of soldering aluminium with Ultrasonic Iron.

* A brochure sent to us by Henry Hope & Sons Ltd., of 17 Berners Street, W.1, gives details of some of their windows designed especially for schools of all types. This brochure contains extremely good illustrations, with structural details. The windows are designed as simply as possible, "capable of being operated by any small school-teacher and strong enough to withstand rough treatment."

* A supplement to F.B.I. Circular 64 for November 1950, gives details of the scheme whereby the Federation of British Industries has established in each Local Planning Authority Area (where there is a substantial industrial interest) a small committee of local industrialists to act collectively in the interests of industry on planning matters. The supplement gives a list of areas and regions covered, and the address for communications.

FORMICA
REGISTERED TRADE MARK

**in the service of
MR. THERM**



The new staff restaurant in the South Eastern Gas Board's Headquarters at Croydon is a model of good planning and up-to-date equipment. It is logical therefore to find "Formica" laminated plastic veneer on the counter and table tops. "Formica," besides having a colourful surface which is congenial to the touch, is cleaned simply by wiping with a damp cloth. It is unaffected by spilt foods, vinegar and alcoholic beverages, and is exceptionally wear resistant. The material is supplied in two grades—Standard and Cigarette-proof.



Please write for illustrated leaflet.

THOMAS DE LA RUE & CO. LTD., PLASTICS DIVISION
Imperial House, 84-86, Regent Street, W.1.

* 'FORMICA' is a registered trade mark and De La Rue are the sole registered users.

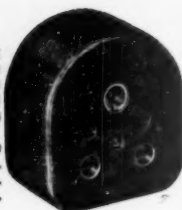
ELECTRICAL ACCESSORIES & CONTROL GEAR**"SANDERS"****SAFETY SOCKETS**

Surface type to B.S. 546 incorporating a shutter covering the live tubes when the plug is withdrawn. Available in three sizes, 2 amp., 5 amp., and 15 amp. Walnut or White. Sockets and Plugs complete.

List No.	Amps.	List Price
TA/OF. 302	2	28/- doz.
TA/OF. 305	5	34/4 doz.
TA/OF. 315	15	46/8 doz.

Prices for Walnut finish.

Catalogue 138 relates.

**"SANDERS" SHUTTERLOCKED SWITCH SOCKETS**

Surface type 5 amp. and 15 amp. single and double pole switches. Walnut and White available. Patented feature prevents insertion of plug whilst switch is in the "on" position.

List No.	Amps.	List Price
LB/OF. 305 S.P.	5	5/5 each
LB/OF. 315 S.P.	15	8/- each
LB/OF. 2305 D.P.	5	5/9 each
LB/OF. 2315 D.P.	15	9/- each

Prices for Walnut finish.

Catalogue 133 relates.

**"SANDERS"****INDUSTRIAL SWITCH SOCKETS
B.S. 546 SOCKET DIMENSIONS**

In cast iron boxes with metal plates, intended for Surface mounting and direct conduit entry. It is recommended that these Switch Sockets should be used with unbreakable plugs described on this page. Available only with double pole switches in 5 amp. and 15 amp. sizes. Plugs not included.

List No.	Amps.	List Price
DV. 2305	5	7/- each
DV. 2315	15	10/- each

Catalogue 138 relates.

**"SANDERS"****UNBREAKABLE PLUG**

In ratings of 5 amp. and 15 amp. for use with sockets to B.S. 546.

Extensively used industrially, but with applications in certain domestic situations. 5 amp.

List No. UP. 305. List price 21/- DOZEN. 15 amp. List No.

UP. 315. List price 30/- DOZEN.



Folder 145 relates.

SOCKETS**TO B.S. 546 DIMENSIONS**

With flush fitting metal plates. For surface mounting and direct conduit entry.

List No.	Amps.	List Price
BZ. 305	5	3/4 each
BZ. 315	15	4/4 each



Catalogue 138 Relates.

**SOCKETS TO B.S. 546
FOR FLUSH MOUNTING.
WALNUT FINISH**

List No.	Amps.	List Price (Excluding Plugs)
KD. 302	2	26/8 doz.
KD. 305	5	28/8 doz.
KD. 315	15	36/4 doz.

AS ABOVE BUT METAL PLATES (B.M.A. FINISH)

ZE. 302	2	38/- doz.
ZE. 305	5	39/8 doz.
ZE. 315	15	52/8 doz.



Catalogue 138 relates.

DOUBLE POLE**SWITCH SOCKETS**

FOR FLUSH MOUNTING, WITH METAL PLATES (B.M.A. FINISH)

List No.	Amps.	List Price (Excluding Plugs)
MA. 2305	5	6/4 each
MA. 2315	15	9/4 each

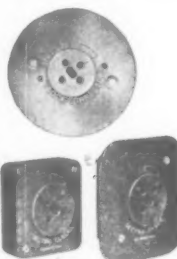
Catalogue 138 relates.

**FUSED
CLOCK CONNECTORS**

These connectors are exceptionally small and neat, the total projection of the surface type complete being only 1/2". The plug which carries the fuse is locked when turned into the "on" position.

List No.	Description	List Price
TA/OF. 22	Square surface, Walnut	28/4 doz.
KD/OF. 22	Square flush, Walnut	29/4 doz.
BKD/OF. 22	Circular, sunk, White	32/- doz.

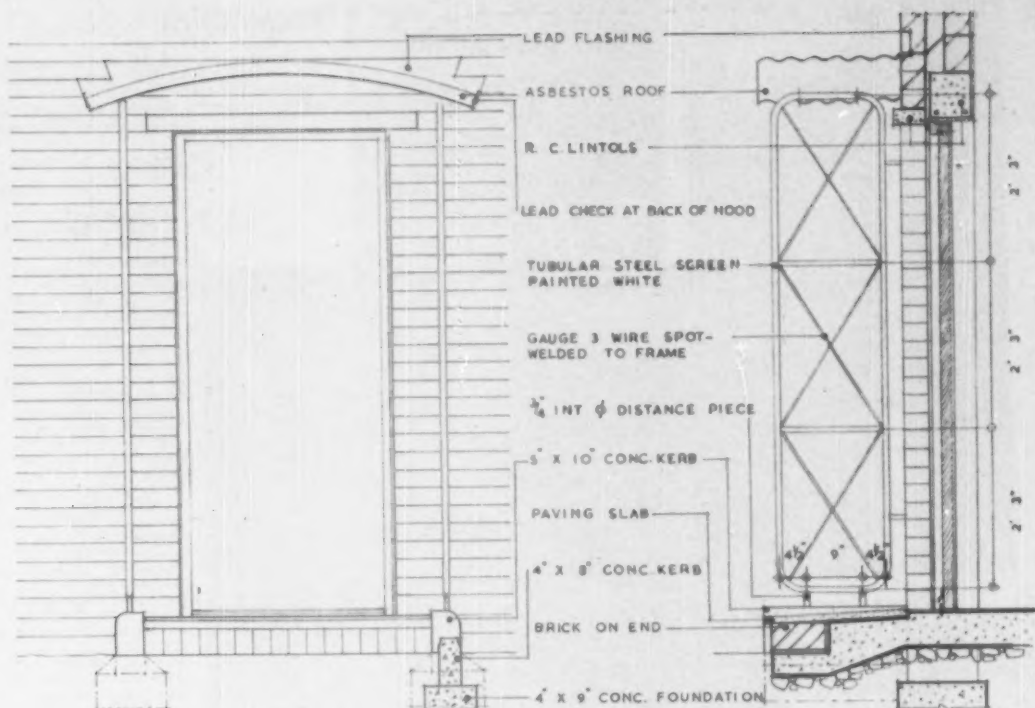
Catalogue 138 relates.



PRICES ABOVE ARE BASIC PRICES WHICH AT PUBLICATION DATE BEAR AN ADVANCE OF 110%

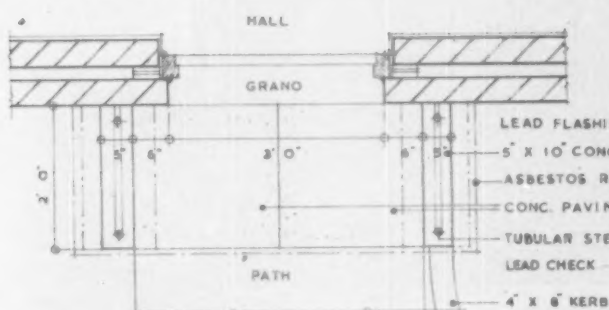
SANDERS
WEDNESBURY

WM. SANDERS & CO. (WEDNESBURY) LTD., WEDNESBURY, STAFFS.



ELEVATION

SECTION



PLAN OF PORCH
SCALE 1/2 TO 1 FT



1\"/>

3/4\"/>

5\"/>

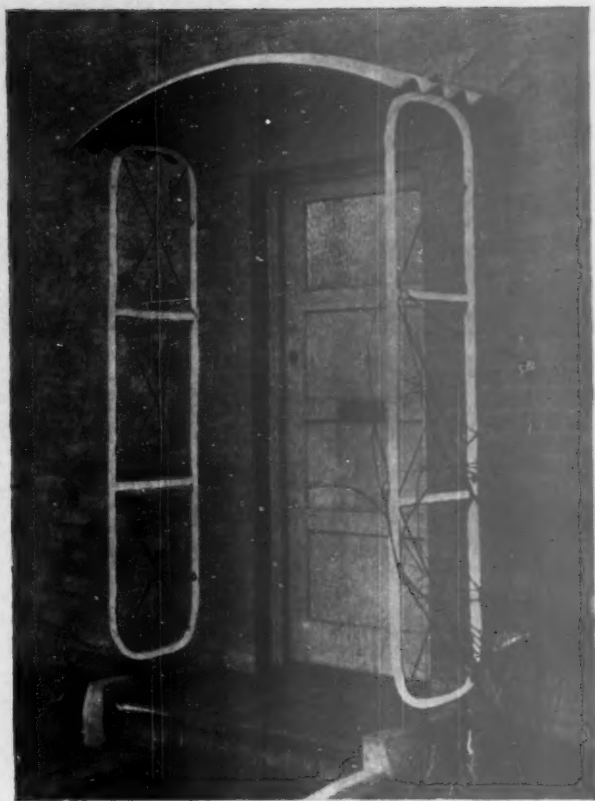
1\"/>

1/2\"/>

1/2\"/>

PAVING
SLAB

1/4 FULL SIZE DETAILS OF PORCH & SCREEN



PORCH: HOUSE AT RUISLIP, MIDDLESEX.

ARCHITECT: HOWARD V. LOBB.

Interest (continued)

provisional date, for planning purposes, by the Department of Health for Scotland. It will be erected on the north-west perimeter of the city on the same site as the proposed new medical school.

OFFICE BOOKSHELF

Administration

The revised and enlarged third edition of *Building and Public Works Administration, Estimating and Costing* by Spence Geddes (George Newnes Ltd. 30s.) is a great improvement on an already valuable book, thus making it even more useful. This book contains information which has seldom, if ever, been available in one volume to surveyors and estimators in the fields of civil engineering and building. The information is very clearly set out, easy to follow and well explained, while the tables are simple but comprehensive. There are twenty-seven sections in all of which sixteen refer to the work of the individual "trades"; the earlier sections cover the office administration and costing generally, how to tender, site administration staff and organization on the site. There is a helpful section on "plant and labour to use" and another on the "working cost per hour of plant." The last section "Useful tables" is alone worth the price of the book to many readers as it brings together information normally spread over a large number of references. To sum up, this is a book which all connected with building and civil engineering contracting will find very helpful unless they have an exceptional organization and records.



AGRICULTURAL IMPLEMENTS FOR BUILDING

The mole drainer and pipelaying machine which has been extensively used for many years is apparently still not familiar to all in the building industry despite its obvious applications. The three views above show stages in laying a plastic water supply pipe by means of the mole drainer drawn by a tractor of 20.30 h.p. The mole drainer costs £25 plus £3 17s. 6d. for necessary attachments for pipe laying. Pipes may be of plastic, copper or galvanized tube.



I.C.I. WORKS AT WILTON

The Wilton Works project of Imperial Chemical Industries was formally inaugurated in September, 1949, by Lord McGowan. The 2,000 acre site is now being developed. Progress has been made with the first stage of the project which will cost £22,000,000. Included in the new scheme is the restaurant and canteen illustrated above. When completed, the first stage of the development will give employment to 4,500 people.

M.O.W. EXHIBITIONS IN 1951

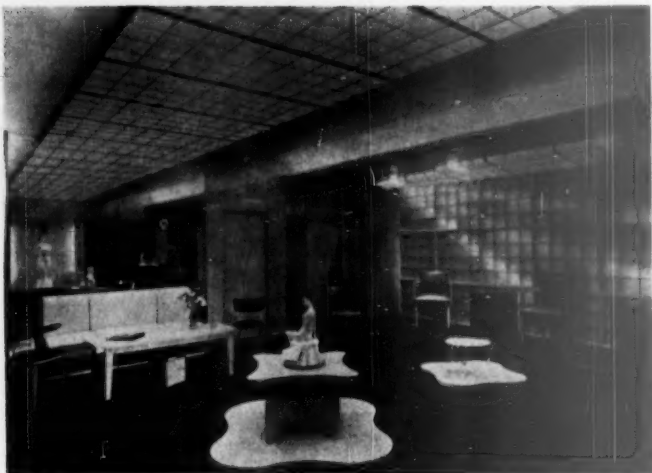
During the first quarter of 1951 Ministry of Works exhibitions will be held in five provincial centres.

A "Modern Building" exhibition, comprising displays illustrating Modern Site Organisation, Plumbing, Thermal Insulation and Codes of Practice, will be shown as follows:—

LEICESTER (Colleges of Art and Technology) 18th-24th JANUARY
NEWCASTLE (St. James's Church Hall) 5th-14th FEBRUARY
CARLISLE (The Market Hall) 22nd-28th FEBRUARY

"Careers in Building" exhibition, showing the training and work of apprentices, will be held at the following places:

LEICESTER (Colleges of Art and Technology) 18th-24th JANUARY
MANCHESTER (Central Library) 5th-10th FEBRUARY
SUNDERLAND (Art Gallery, Fawcett Street) 5th-10th MARCH



Indirect and concealed fluorescent lighting in different colours have been combined with concealed spotlights to provide the needed contrasts in this Birmingham showroom. The overall effect is even with emphasis directed on the display platform.

Owing to shortage of staff in the Chief Architect's department a firm of private architects is to undertake alterations to buildings at a cost not exceeding £3,077.

Internal redecoration of the Art Gallery is to be carried out at an estimated total cost of £550, by direct labour between December 18 and January 31.

Terms recommended by the Durham County Boroughs Committee for the provision of sub-station sites and ducts on new housing sites include early consultation as to siting of sub-stations and that each local authority should settle with the North Eastern Electricity Board the architectural appearance of the sub-stations so that they shall be attractive and harmonise with other buildings.

In view of economic conditions the practice of laying branch service cables inside houses (max. four houses to one external service cable) will not be objected to for the time being.

The attention of the Housing Committee has been drawn to the difficulty tenants of "all-electric" houses are having in paying their accounts. The national policy of the N.E. Electricity Board has been to install quarterly meters. But as this question has been raised by many Local Authorities, the possibility of installing slot meters (previously objected to by the Board owing to the high cost of the apparatus) is to be considered.

COUNCIL PROCEEDINGS SUMMARY

This column summarizes news of the building industry contained in the reports of Council Proceedings received in this office. Dates of the council meetings are given under each heading.

LONDON COUNTY COUNCIL

5-12-50

Total deficiency in the housing accounts for 1949-50 was £2,753,435. Of this £2,462,391 was for the Council's own housing operations since 1919.

It is hoped to include extensions and alterations to Chelsea Polytechnic, at a total estimated expense of £81,000, in the 1951-52 building programme.

Plans for a combined gymnasium and assembly hall at the Council's boarding school at Woolverstone have been approved. The structure will be prefabricated in "Clarimcrete." Cost is estimated at £7,400. Completion date is April, 1951.

A site for housing at Havering Street, Stepney, is to be acquired at an estimated cost of £11,000 including clearance and partial redevelopment.

The housing committee state that, in their view, low pressure heating is more suitable and more economical than steam heating for central heating and communal laundries for the Council's normal requirements.

£206,700 is the estimated total cost for the erection of 105 flats at Lewisham. The scheme has been approved.

MANCHESTER

6-12-50

A price, negotiated with G. and J. Seddon Limited, of Little Hulton, for erecting 78 flats at Woodhouse Park and Moss Nook, has been provisionally accepted.

134 Flats at Greenwood Road, Wythenshawe, are subject to M.o.H. approval, to be built by direct labour.

The amount of land still remaining at Wythenshawe dictates that an increased proportion of flats be built to achieve maximum density. The flats proposed will house applicants in priority class 1.

GATESHEAD

1-11-50

The Chief Architect submitted plans for proposed interim alterations to the Police Buildings—estimated cost is £1,970. Subject to necessary approvals the plans are to be submitted to the Home Office. Subject to final approval the Chief Architect will obtain tenders.

LEEDS

6-12-50.

A quotation of £11,066 16s. 8d. for the supply of asbestos cement pipes from Turners Asbestos Cement Company Limited has been accepted by the Waterworks Committee.

A tender of £3,541 6s. 4d. for roof glazing has been accepted from the "Glasslok" Patent Roof Glazing Company Ltd.

C. Scott, chief assistant architect in the City Architect's department resigns his post on December 16.

Subject to necessary approvals £430 is to be spent on drawing tables, steel plan chests and a glass topped tracing desk and £89 10s. for a hand-operated calculating machine for the City Architect's department.

The Chairman and Deputy Chairman of the Housing Committee are to submit a memorandum to the M.o.H. giving observations on the social needs and problems of families living in large blocks of flats in Leeds.

Licences for erection of houses by private builders will be issued for the 1951 housing programme up to the maximum of one-fifth of the total at present authorised.

Authority has been given for the purchase of the following journals for use in the Works Department: *The Architect and Building News*, *The Builder*, and *Building Digest*.

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the

CONTRACT • NEWS •

OPEN

BUILDING

FARNBOROUGH, HANTS. (a) Factory brickwork. See page 35. Box No. 7656.

FARNBOROUGH, HANTS. (a) Site works, etc. See page 35. Box No. 7565.

SEVENOAKS R.D.C. (a) 6 3-bedroomed houses, Glebe Road. (b) Clerk to the Council, Oak Hill Road. (d) Jan. 4.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

BUILDING

ADMIRALTY. CIVIL ENGINEER-IN-CHIEF'S DEPT. (1) Bldg. work. (2) Alexandria, Dumbartonshire. (3) Industrial Engineering Ltd., Mellier House, Albemarle Street, London, W.1.

ANTRIM. WAR DEPT. (1) Miscellaneous work. (2) N. McDowell, Larne.

GLAMORGANSHIRE. M.O.W. (1) Erection of T.O.B. (2) Birch Grove, Cardiff. (3) Gee Walker & Slater Ltd., Coychurch Road, Bridgend.

GLOUCESTERSHIRE. M.O.W. (1) Huttet Office Accom. (2) 50/52 Prince Street, Bristol. (3) J. Perkins & Sons Ltd., St. Mark's Road, Easton, Bristol.

GLOUCESTERSHIRE. M.O.W. (1) 2 Pairs of Cottages. (2) Eastwood Park, Falfield. (3) K. Warne Ltd., 673 Fishponds Road, Fishponds, Bristol.

HAMPSHIRE. M.O.W. (1) Reinstatement and Adaptations. (2) Royal Southern Yacht Club, Southampton. (3) P. W. Dowman, "Rotherwood," Batley Road, Southampton.

HOLLINGBOURNE R.D.C. (1) 16 houses and 4 flats. (2) Ham Lane, Lenham. (3) T. R. Swann & Son, Sittingbourne. (4) £23,819.

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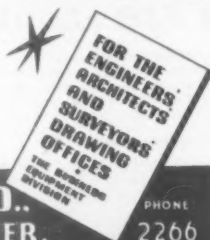
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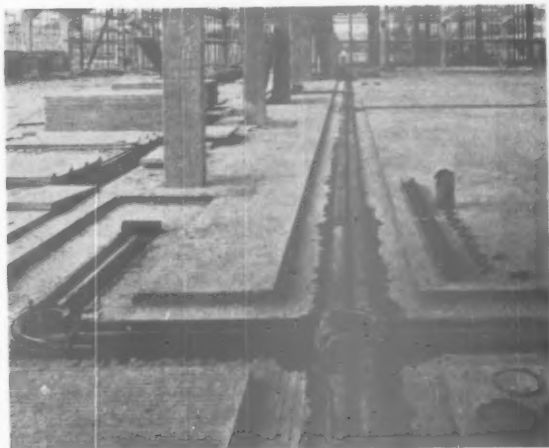
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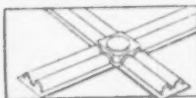
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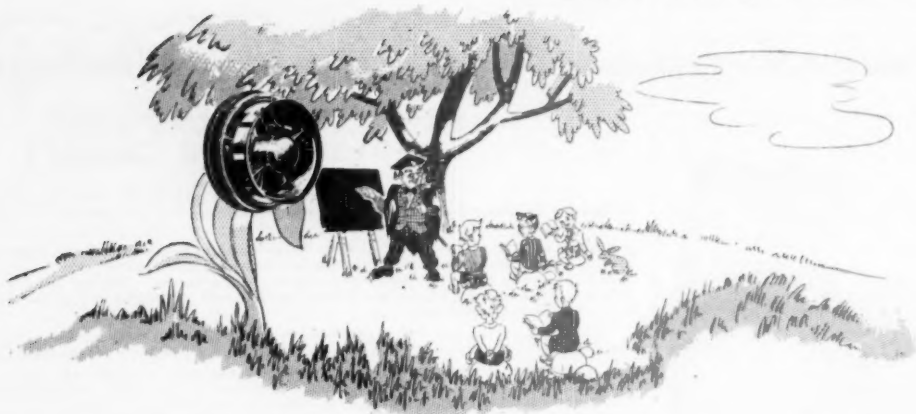
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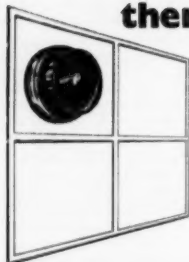
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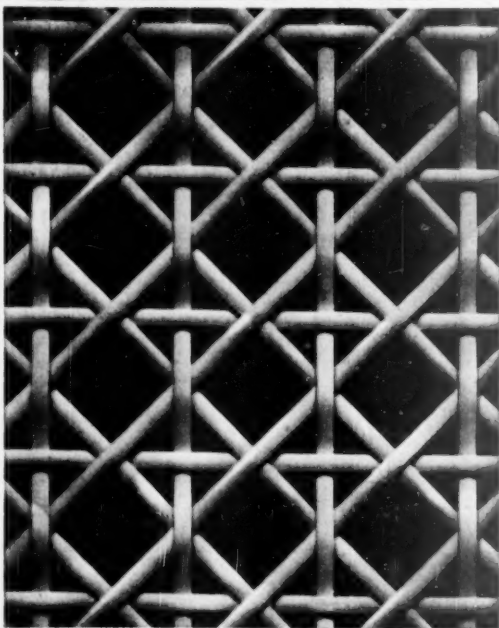


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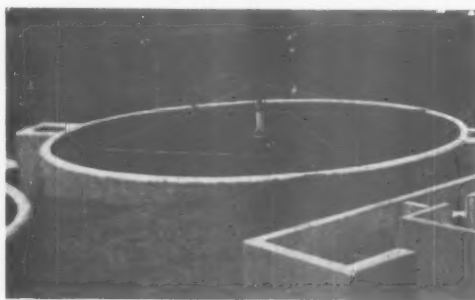
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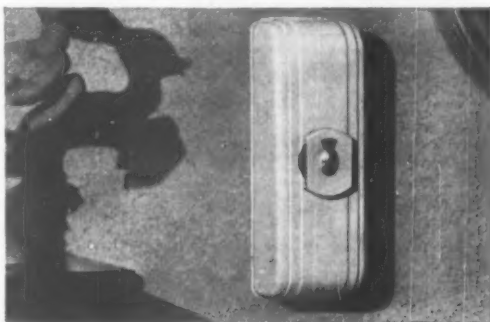
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OFFICIAL ANNOUNCEMENTS

AIR MINISTRY have vacancies for **DESIGNER / DRAUGHTSMEN** in the Design Branch of the Works Department in the following fields: Architecture, Drainage and Water Supply, Land Survey. Vacancies are mainly in London but there are some in the provinces. If desired, consideration would be given to making appointments for London only. Salaries are on ranges up to £825 with starting pay in accordance with age and qualifications.—Applications, stating age, qualifications, previous appointments with dates, should be sent to Air Ministry (S.2.H.), Corwall House, London, S.E.1, from which address further details may also be obtained. [5004]

LONDON COUNTY COUNCIL.

APPLICATIONS are invited for positions of **ARCHITECTURAL ASSISTANT** (salaries up to £580 a year) in the Housing and Valuation Department. Commencing salaries will be determined according to qualifications and experience. Engagement will be subject to the Local Government Superannuation Acts, and successful candidates will be eligible for consideration for appointment to the permanent staff on the occurrence of vacancies.

Successful candidates will be required to assist in the design, layout and preparation of working drawings for housing schemes (cottages and multi-storey flats) and will be employed in the Housing Architect's Division. Forms of application may be obtained from the Director of Housing, The County Hall, Westminster Bridge, S.E.1 (stamped addressed envelope required and quote reference A.A.1). Canvassing disqualifies. (816). [1010]

COUNTY BOROUGH OF GREAT YARMOUTH.

BOROUGH ENGINEER'S DEPARTMENT

APPOINTMENT OF SENIOR ASSISTANT ARCHITECT.

APPLICATIONS are invited for the appointment of a **SENIOR ASSISTANT ARCHITECT** in the Borough Engineer's Department. Salary A.P.T. Grade VI (£595-£660). Candidates should be Associates of the Royal Institute of British Architects, but need not have had previous Local Government experience. The appointment will be terminable by one month's notice on either side and will be subject to the provision of the Local Government Superannuation Act, 1937, and to the passing of a medical examination.

Housing accommodation will be offered to the successful applicant, if married.

Applications, stating age, qualifications and experience, together with the names of three persons to whom reference could be made, should be enclosed in an envelope endorsed "Senior Assistant Architect" and must be received by me not later than Friday, 22nd December, 1950. Canvassing will be deemed a disqualification and candidates must disclose in writing any relationship to any member or holder of any senior office under the Council. Candidates who fail to do so will be disqualified and, if appointed, will be liable to dismissal without notice.

FARRA CONWAY, Town Clerk.
1st December, 1950. [5058]

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

SCHOOLS DIVISIONS

APPLICATIONS are invited for positions of **ARCHITECT**, Grade II (£700-£840), **ARCHITECT**, Grade III (£650-£700), and **TECHNICAL ASSISTANT** (up to £580) for work on new schools and major alterations and extensions to existing schools. The positions are superannuable. Candidates for Grades II and III should possess professional qualifications.—Application forms obtainable from the Architect (AR.FK.8). The County Hall, S.E.1 (enclosing stamped addressed envelope) to be returned by 10th December, 1950. Canvassing disqualifies. (1569). [5053]

COUNTY BOROUGH OF GREAT YARMOUTH.

APPOINTMENT OF CLERK OF WORKS.

APPLICATIONS are invited for the appointment of **CLERK OF WORKS** to act under the direction of the Borough Engineer in the supervision of the erection of six-storey flats.

Applicants should have a thorough knowledge of the building trade, of steel frame building and pile foundations. Membership of the Incorporated Clerk of Works Association of Great Britain would be an advantage.

The salary will be £12 per week.

Applications, stating age, qualifications and previous experience, together with copies of three testimonials, should be enclosed in an envelope endorsed "Clerk of Works" and must be received by me not later than Friday, 22nd December, 1950.

Canvassing, directly or indirectly, will be deemed a disqualification and candidates must disclose in writing whether, to their knowledge, they are related to any member, or holder of any senior office under the Council. Candidates who fail to do so will be disqualified and, if appointed, will be liable to dismissal without notice.

FARRA CONWAY, Town Clerk.
Town Hall, Great Yarmouth
1st December, 1950. [5057]

BOROUGH OF STRATFORD-UPON-AVON.

APPOINTMENT OF ARCHITECTURAL ASSISTANT

APPLICATIONS are invited for the above appointment at a salary in accordance with A.P.T. Grade III (£450-£495).

Applicants should have a good general knowledge of building construction and design and preferably have passed the Intermediate examination of the R.I.B.A.

The Council will, if necessary, be prepared to consider the provision of housing accommodation.

Conditions of the appointment and forms of application may be obtained from the undersigned, to whom completed application forms should be returned not later than Monday, 8th January, 1951.

P. C. SMART, A.M.I.C.E., Borough Engineer,
Municipal Offices, Stratford-upon-Avon. [5070]

COUNTY BOROUGH OF BELFAST.

EDUCATION COMMITTEE.

EDUCATION ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for the following posts on the permanent staff of the Education Architect's Department:

- ASSISTANT ARCHITECTS.
- ARCHITECTURAL ASSISTANTS.

Candidates for positions (a) should be registered Architects and preferably have experience in modern school design and planning.

The salary for (a) is £350 a £25 + £580 per annum, plus cost of living bonus at present £78-£90 per annum according to position on scale.

Candidates for positions (b) should have a sound practical experience in connection with the design and construction of buildings, preparation of specifications and surveying of sites. Preference will be given to candidates who have reached the standard of the R.I.B.A. Intermediate Examination.

The salary for (b) is £250 a £25 + £450 per annum plus cost of living bonus at present £78 + £90 per annum according to the position on scale.

The commencing salary in each case will be determined in the light of the qualifications, ability and experience of the person appointed.

Preference will be given to suitably qualified service candidates provided the Committee is satisfied that such candidates can fill or within a reasonable time will be able to fill the posts efficiently.

Forms of application and conditions of appointment be obtained at the Education Office, Academy Street, Belfast.

Applications accompanied by copies of three recent testimonials must be lodged with the undersigned not later than 12 o'clock noon on Thursday, 28th December, 1950.

Canvassing in any form, oral or written, direct or indirect, will, if proved to the satisfaction of the Committee disqualify a candidate being appointed.

JOHN DUNLOP, Town Clerk.
City Hall, Belfast. [5068]

CITY AND COUNTY BOROUGH OF CARLISLE.

CITY ENGINEER'S DEPARTMENT.

APPLICATIONS are invited for the appointment of a **QUANTITY SURVEYOR**, Grade A.P.T. Va. (£550 - £610).

Applicants for the appointment should preferably be Corporate Members of the Royal Institution of Chartered Surveyors (Quantity Surveyors) and should have experience in the preparation of Bills of Quantities, Estimates, measuring up and settlement of Final Accounts.

Housing accommodation will be provided for the successful applicant if required.

Forms of application and conditions of employment may be obtained from the City Engineer, 18 Fisher Street, Carlisle, to whom all applications should be returned not later than 2nd January, 1951.

H. D. A. ROBERTSON, Town Clerk.
Town Clerk's Office, Fisher Street,
Carlisle. [5069]

METROPOLITAN BOROUGH OF HACKNEY.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

APPOINTMENT OF JUNIOR ARCHITECTURAL ASSISTANT.

APPLICATIONS are invited for this permanent appointment at a salary in accordance with Grades A.P.T. II - III (£420 p.a. - £495 p.a.) plus London Weighting allowance.

The commencing salary may be fixed at a point above the minimum, according to the qualifications and experience of the successful candidate.

Candidates must have a good architectural training and preference will be given to those who have passed the R.I.B.A. Intermediate or equivalent examination.

Conditions of appointment and application form may be obtained from the undersigned upon receipt of a stamped address footsleeve envelope. Completed application forms endorsed "Junior Architectural Assistant" must be returned not later than first post on 8th January, 1951. The Council is unable to provide housing accommodation.

DUDLEY SORRELL, Town Clerk.
Town Hall, Hackney, E.8.
1st December, 1950. [5070]

METROPOLITAN BOROUGH OF PADDINGTON.

HOUSING DEPARTMENT ARCHITECTURAL SECTION.

APPLICATIONS are invited for the under-mentioned appointments, which are subject to the National Joint Council's Service Conditions, the Council's Superannuation Acts, and to one month's notice on either side.

- ASSISTANT ARCHITECT (ID): A.P.T. Va. (£550 + £20 - £610 p.a. plus London "weighting").

Candidates must be Registered Architects, preferably Associates of the Royal Institute of British Architects, and have had experience in architectural design and construction of general municipal work, including multi-storey flats, or similar experience with private firms of Architects.

- ARCHITECTURAL ASSISTANT: A.P.T. III (£450 + £15 - £495 p.a. plus London "weighting").

Candidates must have passed the Intermediate Examination of the Royal Institute of British Architects, be used to preparing working and detail drawings, and be good draughtsmen.

- BUILDING SURVEYING ASSISTANT: A.P.T. I & II (£390 + £15 - £465 p.a. plus London "weighting").

Candidates should possess a sound practical knowledge of building construction, be experienced in surveying sites and buildings, the repair, adaptation and conversion of civic and residential properties, capable of preparing plans, specifications and estimates of costs in respect of such works and their supervision. All things being equal, preference will be given to applicants who are at an advanced stage of preparation for the Intermediate Examination of the Royal Institution of Chartered Surveyors, or other equivalent qualification.

Candidates for the above appointments must state age, qualifications, present and past appointments, with dates and salaries, experience, and names of three referees.

Applications must be received not later than noon on Friday, 29th December, 1950.

W. H. BENTLEY, Town Clerk.
Town Hall, Paddington, W.2.
14th December, 1950. [5074]

MONTGOMERYSHIRE COUNTY COUNCIL

APPOINTMENT OF ARCHITECTURAL ASSISTANT

APPLICATIONS are invited for the appointment of an ARCHITECTURAL ASSISTANT (A.P.T. Grade II — £420 + £465 per annum) in the Office of the County Architect.

Application forms (giving particulars of age, experience and qualifications, etc., and the names of two persons to whom reference can be made) obtainable on application and when completed should be forwarded, together with copies of not more than three recent testimonials, to the undersigned by not later than Saturday, 23rd December, 1950.

The person appointed will be required to pass a medical examination and the appointment is subject to the Local Government (Superannuation) Act, 1917. Canvassing disqualifies.

P. E. WHITE, Clerk of the County Council.
County Offices, Welshpool.
4th December, 1950. [5073]

WELSH REGIONAL HOSPITAL BOARD.

APPLICATIONS are invited for the following permanent post in the Architect's Division.
ASSISTANT ARCHITECT, Salary A.P.T. Grade VIII (£685 + £760).

Applicants must be registered architects, have passed the final examination of the R.I.B.A., and have had wide experience in planning and construction, and in the preparation of working drawings for hospitals and other large buildings. The appointment is supernumerary.

Applications stating age, qualifications and experience, with the names of two referees, should be addressed to the Secretary, Temple of Peace and Health, Cathays Park, Cardiff, so as to reach him not later than 29th December, 1950. [5075]

CITY OF SHEFFIELD EDUCATION COMMITTEE.

COLLEGE OF COMMERCE AND TECHNOLOGY

Principal: G. Lawton, B.Sc., Ph.D., F.R.I.C., A.M.I. Chem.E.
DEPARTMENT OF BUILDING.

APPLICATIONS are invited for appointment as HEAD OF THE DEPARTMENT OF BUILDING. The vacancy arises on the appointment of Mr. T. E. Hall, A.R.I.B.A., as Principal of the City of Liverpool College of Building. Applicants should be graduates with high qualifications in Architecture, or Building, or Civil Engineering, who have had good industrial experience as well as teaching and organising experience in technical education for the building industry and associated professions at advanced levels.

The Department, which was opened in 1947, provides a Full-time Course in Advanced Building Technology, Part-time Day and Evening Courses for the Ordinary and Higher National Certificates in Building, Part-time Day and Evening Courses for City and Guilds Certificates (Intermediate, Final and Full Technological) in a wide range of subjects, together with a number of Courses leading to recognised professional qualifications.

Salary in accordance with the Burnham Technical Scale for Heads of Departments, Grade III (£940 + 25 to £1,050, plus graduate and training allowances where applicable).

Application forms and further particulars of the appointment, which may be obtained from the undersigned on receipt of a stamped addressed foolscap envelope should be completed and returned within two weeks of the appearance of this advertisement.

STANLEY MOFFETT, Director of Education.
Education Office, Sheffield, 1. [5080]

BOROUGH OF RUGBY.

SECOND ARCHITECTURAL ASSISTANT.

RUGBY Corporation invite applications for the appointment of an ARCHITECTURAL ASSISTANT. Salary A.P.T. £520-£570. Housing accommodation is available.

Preference will be given to candidates who have had municipal experience and who have passed the final examination of the R.I.B.A.

Applications, together with copies of three recent testimonials, should reach the Borough Surveyor, "Burford House," Rugby, by Wednesday, 13rd January, 1951. [5081]

BORDER RURAL DISTRICT COUNCIL.

APPLICATIONS are invited for the appointment of a JUNIOR ARCHITECTURAL ASSISTANT in the Housing Department. The salary will be Grade I of the A.P.T. Division (£190 + £15 per annum + £45).

Candidates should have experience of preparation of plans, specifications and some knowledge of surveying.

The appointment will be temporary with a possibility of becoming permanent.

Applications, stating age, qualifications and experience, with copies of two recent testimonials, should be sent to the undersigned not later than Wednesday, January 3rd, 1951.

E. E. HARDING, Clerk to the Council.
7 Victoria Park, Carlisle. [5082]

CONTRACTS

BOROUGH OF WIDNES.

EDUCATION COMMITTEE.

FAIRFIELD BOYS' SECONDARY MODERN SCHOOL.

CONTRACTORS desirous of tendering for the erection of the above School are invited to submit their names to the Borough Architect, Brendan House, Widnes Road, Widnes, not later than the 18th December, 1950.

The work comprises the complete erection of the School, which will provide accommodation for 140 pupils.

The following information should be supplied:—

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(b) An assurance that the applicant has the necessary financial and material resources and the organisation to carry out the work.

Bids of Quantities and Form of Tender, together with relevant details as to the date and time for receipt of tenders, will be forwarded to selected applicants in due course.

FRANK HOWARTH, Town Clerk.

Town Hall, Widnes. [5067]

TENDERS invited for carrying out site works including construction of approximately 10,000 sq. ft. site concrete 6 in. thick reinforced, at Farnborough, Hampshire, together with soil and surface water drainage and incidental works connected therewith. Write for full details to Box 7565, The Architect and Building News. [5076]

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ARCHITECTURAL APPOINTMENTS VACANT

SCHERRER & Hicks, F.R.I.B.A., of 19 Cavendish Square, W.1, require two Assistants of Intermediate standard in January, 1951. Salary by arrangement. Museum 1105. [5050]

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WEST END London firm requires Architectural Assistant, qualified R.I.B.A., with office experience in preparation of working drawings preferably in connection with industrial building. Write stating qualifications, etc., and salary required — Box 7556 Architect and Building News or telephone Welbeck 8962. [5071]

QUALIFIED Assistant. Arch test required. Must be good draughtsman and experienced in both working drawings and sketch plans. — Apply stating age, experience and salary required to T. P. Bennett & Son, 43 Bloomsbury Square, London, W.C.1. [5072]

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CONTRACTORS seek steel frame building suitable for factory 100ft. long by 100ft. wide. Dimensions can be varied to suit steelwork. Alternatively roof trusses, etc. Drawings (returnable), specification and price, to Box 7567, The Architect and Building News. [5074]

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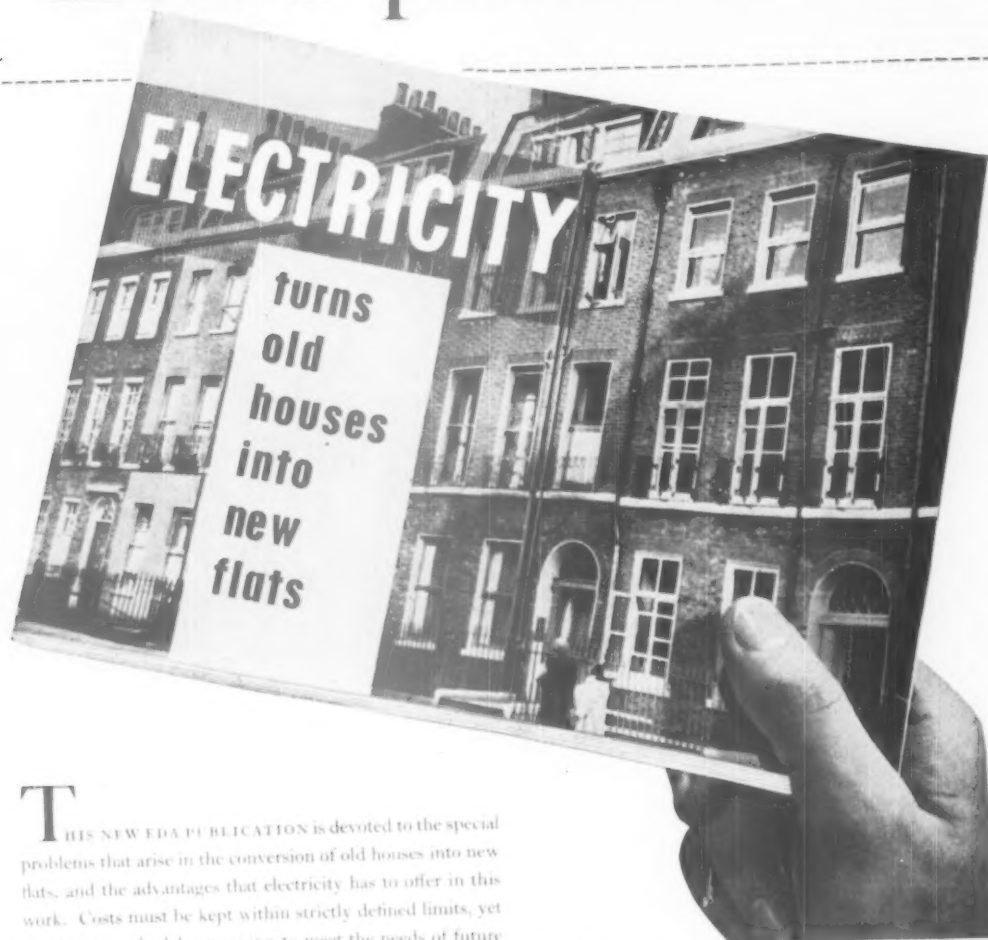
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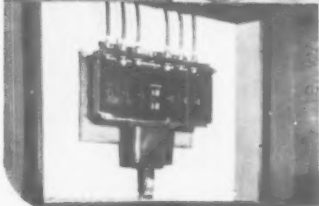
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